IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc., Defendants.	Civil Action No.

COMPLAINT

The United States of America, by authority of the Attorney General of the United States and at the request of the Administrator of the United States Environmental Protection Agency ("EPA"), files this complaint and alleges as follows:

NATURE OF ACTION

1. This is a civil action brought pursuant to Sections 204 and 205 of the Clean Air Act ("Act"), 42 U.S.C. §§ 7523 and 7524, for injunctive relief and the assessment of civil penalties against Volkswagen AG, Audi AG, Volkswagen Group of America, Inc. ("VWoA"), Volkswagen Group of America Chattanooga Operations, LLC ("VWoA Chattanooga"), Dr. Ing. h.c. F. Porsche AG ("Porsche AG"), and Porsche Cars North America, Inc. (collectively, "VW") for violations of the Act and regulations promulgated thereunder.

JURISDICTION AND VENUE

2. This Court has jurisdiction over the subject matter of and the parties to this action pursuant to Sections 203, 204, and 205 of the Act, 42 U.S.C. §§ 7522, 7523, and 7524, and 28 U.S.C. §§ 1331, 1345, and 1355.

3. This Court has personal jurisdiction over Defendant Volkswagen AG under Mich. Comp. Laws § 600.705 because Volkswagen AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Defendant Volkswagen AG is consistent with due process.

4. Among other things, Defendant Volkswagen AG interacts with Defendant VWoA, its wholly-owned subsidiary, which has an office in Auburn Hills, Michigan and this judicial district, by regularly submitting information to VWoA necessary for VWoA to complete the required applications to obtain certificates of conformity ("COCs") for a significant number of the vehicles Volkswagen AG sells in the United States. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with its wholly-owned subsidiary, Volkswagen AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Volkswagen AG has also attended meetings at, and had other communications with, EPA's Ann Arbor, Michigan Office of Transportation and Air Quality ("OTAQ"), the EPA office in charge of issuing COCs. Further, Volkswagen AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

5. This Court has personal jurisdiction over Defendant VWoA under Mich. Comp. Laws § 600.705 because it transacts business in Michigan. In addition, this Court's exercise of

VW FOIA, EPA 06/20/2017 2017-FFP_036850

jurisdiction over VWoA is consistent with due process.

6. Among other things, VWoA has an Engineering and Environmental Office in Auburn Hills, Michigan from which it interacts with EPA OTAQ in connection with obtaining many of the COCs for vehicles sold in the United States, including many of the light duty diesel vehicles addressed in this Complaint. Further, VWoA delivered or arranged for delivery of many of the vehicles addressed in this Complaint, within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

7. This Court has personal jurisdiction over Defendant Audi AG under Mich. Comp. Laws § 600.705 because Audi AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Audi AG is consistent with due process.

8. Among other things, Audi AG has interacted with VWoA's Auburn Hills, Michigan office by regularly submitting information to VWoA's Auburn Hills office necessary for VWoA to complete the required applications to obtain COCs for the vehicles that Audi AG sells in the United States, including the light duty diesel vehicles addressed in this Complaint. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with VWoA, Audi AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Audi AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Audi AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

9. This Court has personal jurisdiction over Defendant Volkswagen Group of America

VW FOIA, EPA 06/20/2017 2017-FFP_036851

Chattanooga Operations, LLC, under Mich. Comp. Laws § 600.705 because VWoA Chattanooga transacts business in Michigan. In addition, this Court's exercise of jurisdiction over VWoA Chattanooga is consistent with due process.

10. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, VWoA is the corporate parent of VWoA Chattanooga; VWoA Chattanooga manufactures certain Passats; VWoA Chattanooga interacts with VWoA, in connection with vehicle manufacturing and other matters; in connection with this and other interactions with its parent company, VWoA Chattanooga has attended meetings at VWoA's Auburn Hills, Michigan office and/or corresponded, telephoned and otherwise communicated with VWoA's Auburn Hills office. Further, VWoA Chattanooga delivered or arranged for delivery of its cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

11. This Court has personal jurisdiction over Defendant Porsche AG under Mich. Comp. Laws § 600.705 because Porsche AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche AG is consistent with due process.

12. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche AG has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche AG has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor,

VW FOIA, EPA 06/20/2017 2017-FFP_036852

Michigan. Further, Porsche AG delivered or arranged for delivery of Porsche cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

13. This Court has personal jurisdiction over Defendant Porsche Cars North America, Inc. under Mich. Comp. Laws § 600.705 because Porsche Cars North America, Inc. transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche Cars North America, Inc. is consistent with due process.

14. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche Cars North America, Inc. has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche Cars North America, Inc. has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche Cars North America, Inc. has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Porsche Cars North America, Inc. delivered or arranged for delivery of Porsche cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

15. Venue is proper in this jurisdiction pursuant to Sections 204 and 205 of the Act, 42 U.S.C. §§ 7523 and 7524, because violations occurred in this judicial district and VWoA has a corporate office within this judicial district.

VW FOIA, EPA 06/20/2017 2017-FFP_036853

DEFENDANTS

16. Volkswagen AG is a publicly-held German corporation.

17. Volkswagen AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

18. Volkswagen AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

19. Volkswagen Group of America, Inc. is incorporated under the laws of the State of New Jersey, and is a wholly-owned subsidiary of Volkswagen AG.

20. Volkswagen Group of America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

21. Volkswagen Group of America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

22. Volkswagen Group of America Chattanooga Operations, LLC is incorporated under the laws of the State of Tennessee, and is a wholly-owned subsidiary of VWoA.

23. Volkswagen Group of America Chattanooga Operations, LLC is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

24. Volkswagen Group of America Chattanooga Operations, LLC is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

25. Audi AG is a German corporation, and is approximately 99.55% owned by Volkswagen AG.

26. Audi AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

VW FOIA, EPA 06/20/2017 2017-FFP_036854

27. Audi AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

28. Porsche AG is a German corporation, and is wholly-owned by Volkswagen AG.

29. Porsche AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

30. Porsche AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

31. Porsche Cars North America, Inc. is a Delaware corporation, and is a wholly-owned subsidiary of Porsche AG.

32. Porsche Cars North America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

33. Porsche Cars North America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

34. At all times relevant to this action, VW was engaged in the business of manufacturing new motor vehicles, and selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing (or causing the foregoing with respect to) these vehicles in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_036855

STATUTORY AND REGULATORY BACKGROUND

35. This action arises under Title II of the Act, as amended, 42 U.S.C. § 7521 *et seq.*, and the regulations promulgated thereunder, which aim to protect human health and the environment by reducing emissions of nitrogen oxides ("NOx") and other pollutants from mobile sources of air pollution, including new motor vehicles.

36. NOx is a family of highly reactive gases that play a major role in the atmospheric reactions with volatile organic compounds that produce ozone in the atmosphere. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Breathing ozone can also worsen bronchitis, emphysema, and asthma, and can lead to premature death. Children are at greatest risk of experiencing negative health impacts from exposure to ozone. Additionally, recent scientific studies indicate that the direct health effects of NOx are worse than previously understood, including respiratory problems, damage to lung tissue, and premature death.

37. Section 202(a) of the Act, 42 U.S.C. § 7521(a), requires EPA to promulgate emissions standards for new motor vehicles for NOx, and other air pollutants.

38. 40 C.F.R. Part 86 sets emission standards and test procedures for light-duty motor vehicles, including emission standards for NOx. *See* 40 C.F.R. § 86.1811-04.

A. Certificates of Conformity and Prohibition on Uncertified Motor Vehicles

39. Light-duty vehicles must satisfy emission standards for certain air pollutants. 40 C.F.R. §§ 86.1811-04, 86.1811-09, 86.1811-10. EPA administers a certification program to ensure that every new motor vehicle introduced into United States commerce satisfies applicable emission standards. 42 U.S.C. § 7521. Under this program, EPA issues COCs and thereby

VW FOIA, EPA 06/20/2017 2017-FFP_036856

regulates the introduction of new motor vehicles into United States commerce.

40. To obtain a COC, a manufacturer must submit an application to EPA for each model year and for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1843-01. A test group is comprised of vehicles with similar emissions profiles for pollutants regulated under the Act. *See, e.g.,* 40 C.F.R. §§ 86.1803-01, 86.1827-01.

41. Vehicles are covered by a COC only if the vehicles are as described in the manufacturer's application for the COC "in all material respects." 40 C.F.R. § 86.1848-10(c)(6).

42. EPA issues COCs "upon such terms . . . as [the Administrator] may prescribe." 42 U.S.C. § 7525(a)(1); *see also* 40 C.F.R. § 86.1848-01(b) (authorizing EPA to issue COCs on any terms that are necessary and appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

43. Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), prohibits manufacturers of new motor vehicles from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or any person from importing into the United States any new motor vehicle not covered by a COC issued by EPA under regulations prescribed by the Act governing vehicle emission standards. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

B. Prohibition on Defeat Devices and Tampering

44. Each COC application must include, among other things, a list of all auxiliary emission control devices ("AECDs") installed on the vehicles. 40 C.F.R. § 86.1844-01(d)(11).

45. An AECD is "any element of design which senses temperature, vehicle speed, engine [revolutions per minute], transmission gear, manifold vacuum, or any other parameter for

VW FOIA, EPA 06/20/2017 2017-FFP_036857

the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.1803-01.

46. An element of design is "any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine." 40 C.F.R. § 86.1803-01.

47. Each COC application must also include "a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device." 40 C.F.R. § 86.1844-01(d)(11).

48. A motor vehicle containing an AECD that can reasonably be expected to affect emission controls and is not disclosed or justified in the COC application does not conform in all material respects with the COC application, and is therefore not covered by the COC.

49. A "defeat device" is an AECD "that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . . . ." 40 C.F.R. § 86.1803-01.

50. Motor vehicles equipped with defeat devices cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86.1809-01, 86.1809-10, 86.1809-12.

VW FOIA, EPA 06/20/2017 2017-FFP_036858

51. Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." *See also* 40 C.F.R. § 86.1854-12(a)(3)(ii).

52. Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), prohibits any person from removing or rendering inoperative any device or element of design installed on a motor vehicle in compliance with the regulations promulgated under Title II of the Act prior to its sale and delivery to the ultimate purchaser.

53. It is also a violation to cause any of the acts set forth in Section 203(a)(3). 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

C. Reporting Requirements

54. Section 208(a) of the Act, 42 U.S.C. § 7542(a), requires that "[e]very manufacturer of new motor vehicles . . . establish and maintain records, perform tests . . . make reports, and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting in compliance" with Part A of Title II of the Act.

55. Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), prohibits any person from failing or refusing to make reports or provide information to EPA pursuant to Section 208 of the

VW FOIA, EPA 06/20/2017 2017-FFP_036859

Act, 42 U.S.C. § 7542. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

GENERAL ALLEGATIONS

56. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix A to this Complaint ("2.0L Subject Vehicles").

57. Each of the 2.0L Subject Vehicles is equipped with a 2.0 liter diesel engine, and is part of model years 2009-2015.

58. In total, approximately 500,000 2.0L Subject Vehicles were sold in the United States.

59. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for the 2.0L Subject Vehicles.

60. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix B to this Complaint ("3.0L Subject Vehicles").

61. Each of the 3.0L Subject Vehicles is equipped with a 3.0 liter diesel engine, and is part of model years 2009-2016.

62. In total, approximately 80,000 3.0L Subject Vehicles were sold in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_036860

63. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for certain 3.0L Subject Vehicles.

64. Porsche Cars North America, Inc. submitted to EPA, on behalf of itself, and representing Porsche AG, the applications for COCs for certain 3.0L Subject Vehicles.

65. Each COC issued by EPA during the time period relevant to this Complaint states on its face that the certificate covers only those new motor vehicles that conform, in all material respects, to the design specifications provided to EPA in the certificate application for such vehicle.

66. Each application for a COC constitutes a "report [and/or] information the Administrator may reasonably require . . ." to assess compliance with the Act, within the meaning of Section 208(a) of the Act, 42 U.S.C. § 7542(a).

A. The 2.0L Subject Vehicles

67. Each 2.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 2.0L Subject Vehicle.

68. The electronic control module ("ECM") of the 2.0L Subject Vehicles contains software logic and/or calibrations that sense when the vehicle is being tested for compliance with applicable emission standards, based on various inputs including the position of the steering wheel, vehicle speed, the duration of the engine's operation, and barometric pressure. These inputs precisely track the parameters of the federal test procedure ("FTP") and other test cycles used for emission testing required to obtain a COC.

VW FOIA, EPA 06/20/2017 2017-FFP_036861

69. During FTP emission testing, the 2.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration that VW has referred to as the "dyno calibration" (referring to the equipment used in emissions testing, called a dynamometer). At all other times during normal vehicle operation, the 2.0L Subject Vehicles' ECM software run a separate "road calibration" that reduces the effectiveness of the emission control system. In other words, the 2.0L Subject Vehicles' ECM software tracks the parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

70. The COC applications for the 2.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 2.0L Subject Vehicles' COC applications.

71. The 2.0L Subject Vehicles therefore are not covered by a COC.

72. This dual-calibration system results in increased NOx emissions by a factor of up to 40 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

73. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

74. VW entities including at least Volkswagen AG, VWoA and Audi AG knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

VW FOIA, EPA 06/20/2017 2017-FFP_036862

75. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

B. The 3.0L Subject Vehicles

76. Each 3.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 3.0L Subject Vehicles.

77. The ECM of the 3.0L Subject Vehicles contains software logic and/or calibrations that cause the vehicle to perform differently when the vehicle is being tested for compliance with applicable emission standards, based on various inputs that appear to track the FTP and/or other test cycles used for emission testing required to obtain a COC, than when the vehicle is in normal operation and use.

78. During FTP emission testing, the 3.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration referred to as the "temperature conditioning mode." At other times during normal vehicle operation, the 3.0L Subject Vehicles' ECM software run a separate "normal mode" that reduces the effectiveness of the emission control system. In other words, the 3.0L Subject Vehicles' ECM software tracks certain parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

79. The COC applications for the 3.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The

VW FOIA, EPA 06/20/2017 2017-FFP_036863

undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 3.0L Subject Vehicles' COC applications.

80. The 3.0L Subject Vehicles therefore are not covered by a COC.

81. This dual-calibration strategy results in increased NOx emissions by a factor of up to 9 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

82. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

83. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG and Porsche Cars North America, Inc. knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

84. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_036864

C. The Investigations and Concealment

85. In or about May 2014, West Virginia University's Center for Alternative Fuels, Engines & Emissions ("WVU") published results of a study commissioned by the International Council on Clean Transportation, and conducted in collaboration with the California Air Resources Board ("CARB"), that found on-road NOx emissions from two 2.0L VW light duty diesel vehicles (2012 Jetta and 2013 Passat) were significantly higher than the applicable emission standards established by EPA regulations.

86. Beginning in or about May 2014 through the present, CARB, in coordination with EPA, has investigated the reasons for the high in-use emissions, repeatedly questioning representatives from VWoA and Volkswagen AG about WVU's findings.

87. In or about October 2014, those VW entities responded that the increased emissions from the vehicles studied by WVU were attributable to various yet-to-be-identified technical issues with the after treatment emission control systems and in-use conditions not represented by the FTP.

88. VW entities including at least VWoA represented to regulators that the vehicles' software could be optimized to address the excess NOx emissions issue and issued a recall in December 2014 and March 2015 for 2.0L vehicles to address the excess emissions issue.

89. From approximately December 2014 through the present, CARB, in coordination with EPA, conducted its own testing to further investigate the reasons behind the high NOx emissions observed on VW's 2.0L light duty diesel vehicles during real world driving conditions, and to investigate the effectiveness of the recall action. This on-road and laboratory testing showed limited reduction in the rates of emission of NOx of the recalled vehicles, and also

VW FOIA, EPA 06/20/2017 2017-FFP_036865

revealed that the vehicles exhibited different behaviors during real world driving conditions than during FTP emission testing.

90. During the course of this investigation, VW entities including at least VWoA and Volkswagen AG suggested a number of potential technical issues and in-use conditions that might explain the higher emission test results, but none of those issues adequately explained why the 2.0L Subject Vehicles behaved differently while operating on the FTP test cycles versus while being driven on the road.

91. In or about September 2015, VW entities including at least VWoA and Volkswagen AG admitted that these 2.0L motor vehicles contained a defeat device in the form of a software algorithm or algorithms that detect when the vehicle is undergoing emission testing.

92. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 2.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least VWoA and Volkswagen AG.

93. VW entities including at least Volkswagen AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 2.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

94. On October 8, 2015, Mr. Michael Horn, VWoA President and Chief Executive Officer, testified before the United States House of Representatives Subcommittee on Oversight and Investigations Committee on Energy and Commerce, and admitted that VWoA and

VW FOIA, EPA 06/20/2017 2017-FFP_036866

Volkswagen AG's representations to EPA and CARB that the increased NOx emissions from the 2.0L Subject Vehicles were due to technical issues were false.

95. During his October 8, 2015 testimony, Mr. Horn further admitted that the installation of the "defeat device" in the 2.0L Subject Vehicles was a knowing and willful decision to deceive.

96. Even after EPA issued its September 18, 2015 Notice of Violation to Volkswagen AG, Audi AG, and VWoA, and Mr. Horn's testimony before Congress, VW failed to come forward and reveal to regulators that the 3.0L Subject Vehicles contain one or more undisclosed AECDs, including the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode." The existence of this dual calibration strategy was uncovered only as a result of EPA and CARB's diligence.

97. On November 2, 2015, EPA issued a Notice of Violation to Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc., citing violations of the Act related to the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode," and the resultant excess emissions in certain 3.0L light duty diesel vehicles.

98. VW entities including at least Volkswagen AG immediately issued a statement denying that software had been installed in 3.0L light duty diesel vehicles to alter emissions in a prohibited manner.

99. On or about November 23, 2015, VW entities including at least Volkswagen AG and Audi AG admitted that the 3.0L Subject Vehicles contain three undisclosed AECDs, one of which – the temperature conditioning mode – is regarded as a defeat device under the Act and implementing regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_036867

100. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 3.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least Volkswagen AG and Audi AG.

101. VW entities including at least Audi AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 3.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

FIRST CLAIM FOR RELIEF
(Section 203(a)(1): Sale, Offer for Sale, Introduction or Delivery for Introduction into Commerce, or Import of New Motor Vehicles Not Covered by COCs)

102. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

103. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 500,000 2.0L Subject Vehicles that were not covered by COCs (or caused any of the foregoing) because the 2.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 2.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 2.0L Subject Vehicles' emission controls.

104. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 80,000 3.0L Subject Vehicles that were not covered by COCs (or

VW FOIA, EPA 06/20/2017 2017-FFP_036868

caused any of the foregoing) because the 3.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 3.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 3.0L Subject Vehicles' emission controls.

105. VW violated Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), by selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing new motor vehicles that were not covered by a COC, or by causing any of the foregoing acts.

106. Each such violation of Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), is a separate offense with respect to each new motor vehicle.

107. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW is liable for injunctive relief and civil penalties of up to $32,500 per vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

SECOND CLAIM FOR RELIEF
(Section 203(a)(3)(B): Manufacture, Sale, Offer for Sale, or Installation of Defeat Device)

108. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

109. VW entities including at least Volkswagen AG, VWoA and Audi AG manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended for use with, or as part of, motor vehicles, including the road-calibration AECDs installed on the 2.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 2.0L

VW FOIA, EPA 06/20/2017 2017-FFP_036869

Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Volkswagen AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

110. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended or use with, or as part of, motor vehicles, including the normal mode calibration AECDs installed on the 3.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 3.0L Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Audi AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

111. VW entities including at least Volkswagen AG and Audi AG violated Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), by manufacturing, selling, offering for sale, or installing "defeat devices" on new motor vehicles, or by causing any of the foregoing acts.

112. Each part or component that constitutes a "defeat device" manufactured, sold, offered for sale, or installed on new motor vehicles (or the causing thereof) is a separate violation of Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B).

113. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG and Audi AG are liable for injunctive relief and civil penalties of up to $2,750 per part or component that constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $3,750 per part or component that

VW FOIA, EPA 06/20/2017 2017-FFP_036870

constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

THIRD CLAIM FOR RELIEF
(Section 203(a)(3)(A): Tampering)

114. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

115. The road-calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

116. The normal mode calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

117. VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the road-calibration AECDs in the 2.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

118. VW entities including at least Volkswagen AG, Audi AG and Porsche AG violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the normal mode calibration AECDs in the 3.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

VW FOIA, EPA 06/20/2017 2017-FFP_036871

119. Each 2.0L Subject Vehicle equipped with the road-calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

120. Each 3.0L Subject Vehicle equipped with the normal mode calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and Porsche AG of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

121. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG and Porsche AG are liable for injunctive relief and civil penalties of up to $32,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

FOURTH CLAIM FOR RELIEF
(Section 203(a)(2): Reporting Violations)

122. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

123. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to disclose the existence of the road-calibration and/or other AECDs in the COC applications for the 2.0L Subject Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

124. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to disclose the existence of the normal mode calibration and/or other AECDs in the COC applications for the 3.0L Subject

VW FOIA, EPA 06/20/2017 2017-FFP_036872

Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

125. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to provide a justification for the road-calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the road-calibration and/or other AECDs are not a defeat device, in the COC applications for the 2.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

126. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to provide a justification for the normal mode calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the normal mode calibration and/or other AECDs are not a defeat device, in the COC applications for the 3.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

127. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to disclose one or more AECDs in a COC application for a test group of new motor vehicles.

128. VW entities including at least Volkswagen AG, Audi AG and VWoA violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 2.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

VW FOIA, EPA 06/20/2017 2017-FFP_036873

129. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 3.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

130. Each failure to provide reports or information described above is a separate violation of Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2).

131. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. are liable for injunctive relief and civil penalties of up to $32,500 per day of violation of Section 203(a)(2) occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per day of violation for such violations occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff, the United States of America, respectfully requests that the Court provide the following relief:

a. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle not covered by a COC issued by EPA in accordance with the Act and the regulations promulgated thereunder.

b. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the

VW FOIA, EPA 06/20/2017 2017-FFP_036874

foregoing acts) any new motor vehicle equipped with an AECD, except in compliance with the Act and the regulations promulgated thereunder.

c. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle equipped with a defeat device.

d. Permanently enjoin VW from bypassing, defeating, or rendering inoperative any device or element of design installed on or in a new motor vehicle in compliance with regulations promulgated under Title II of the Act.

e. Order VW to take appropriate steps, including, but not limited to, mitigation of excess NOx emissions, to remedy the violations of Sections 203(a)(1), 203(a)(3)(A), and 203(a)(3)(B) alleged above.

f. Enter a judgment that VW is liable to the United States for civil penalties for each violation of Section 203(a) of the Act, and assess civil penalties against VW as follows:

i. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(1) of the Act;

ii. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(A) of the Act;

VW FOIA, EPA 06/20/2017 2017-FFP_036875

iii. up to $2,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $3,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(B) of the Act; and

iv. up to $32,500 per day of violation occurring before January 13, 2009, and up to $37,500 per day of violation occurring on or after January 13, 2009 for violations of Section 203(a)(2) of the Act.

g. Award the United States its costs in this action; and

h. Grant such other and further relief as the Court deems just and proper.

VW FOIA, EPA 06/20/2017 2017-FFP_036876

Respectfully submitted,

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VW FOIA, EPA 06/20/2017 2017-FFP_036877

United States v. Volkswagen AG, et al.

APPENDIX A TO COMPLAINT

Identification of the 2.0L Subject Vehicles

Model Year	EPA Test Group	Vehicle Make and Model(s)
2009	9VWXV02.035N	VW Jetta, VW Jetta Sportwagen
2009	9VWXV02.0U5N	VW Jetta, VW Jetta Sportwagen
2010	AVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2011	BVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U4S	VW Passat
2013	DVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2013	DVWXV02.0U4S	VW Passat
2014	EVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2014	EVWXV02.0U4S	VW Passat
2015	FVGAV02.0VAL	VW Beetle, VW Beetle Convertible, VW Golf, VW Golf Sportwagen, VW Jetta, VW Passat, Audi A3

United States v. Volkswagen AG, et al.

APPENDIX B TO COMPLAINT

Identification of the 3.0L Subject Vehicles

Model Year	EPA Test Group(s)	Vehicle Make and Model(s)
2009	9ADXT03.03LD	VW Touareg, Audi Q7
2010	AADXT03.03LD	VW Touareg, Audi Q7
2011	BADXT03.02UG BADXT03.03UG	VW Touareg Audi Q7
2012	CADXT03.02UG CADXT03.03UG	VW Touareg Audi Q7
2013	DADXT03.02UG DADXT03.03UG DPRXT03.0CDD	VW Touareg Audi Q7 Cayenne Diesel
2014	EADXT03.02UG EADXT03.03UG EPRXT03.0CDD EADXJ03.04UG	VW Touareg Audi Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2015	FVGAT03.0NU2 FVGAT03.0NU3 FPRXT03.0CDD FVGAJ03.0NU4	VW Touareg Audi: Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2016	GVGAT03.0NU2 GPRXT03.0CDD GVGAJ03.0NU4	VW Touareg Cayenne Diesel A6 quattro, A7 quattro,A8, A8L, Q5

To: Ex. 6
Ex. 6
Ex. 7
Cc: Ex. 7 Brooks, Phillip[Brooks.Phillip@epa.gov]; Belser, Evan[Belser.Evan@epa.gov]; Kaul, Meetu[Kaul.Meetu@epa.gov]
From: Ex. 7
Sent: Mon 1/4/2016 6:33:19 PM
Subject: US v. Volkswagen AG, et al. - filings and press
ENV_ENFORCEMENT-#2565086-v1-VW__EDMI_MDL_notice.PDF
ENV_ENFORCEMENT-#2565078-v1-VW__complaint_filed.PDF
VW_press_release_01 01 2016 CLEAN EMBARGOED.DOC
ENV_ENFORCEMENT-#2565090-v1-VW_Notice_of_Potential_Tag_Along_as_Filed_in_MDL.PDF

All:

Attached please find a copy of the civil Clean Air Act complaint filed today by the United States, on behalf of EPA, against Volkswagen AG and several related entities in the US District Court for the Eastern District of Michigan. We have also filed a Notice of Potential Tag-Along Action with the Judicial Panel on Multidistrict Litigation, *In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Action (MDL No. 2672)*, and a notice to the EDMI court that we filed a Notice with the JPML.

If you get any press questions about the US filings, please refer them to Ex. 7 in our Office of Public Affairs, Ex. 7 A copy of our press release is attached. EPA issued a virtually identical release.

Ex. 7

Overnight Deliveries

Ex. 7

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc., Defendants.	Civil Action No. 2:16-cv-10006-LJM-MJH

NOTICE

The United States hereby provides notice to the Court that the above-captioned matter is an action by the United States for injunctive relief and civil penalties involving factual questions in common with those at issue in the multi-district litigation captioned *In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation*, MDL No. 2672, pending before the Honorable Charles R. Breyer of the United States District Court for the Northern District of California. The United States intends to file today with the Clerk's Office of the United States Judicial Panel on Multidistrict Litigation a Notice of Potential Tag-Along Action, identifying the complaint in this action as appropriate for inclusion in the multi-district litigation for coordinated pretrial proceedings.

Respectfully submitted,

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s/ Bethany Engel
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CERTIFICATE OF SERVICE

I hereby certify that on January 4, 2016, I electronically filed the foregoing Notice with the Clerk of the Court using the ECF system. I hereby certify that I have sent by United States Postal Service and electronic mail the foregoing Notice to the following attorneys for defendants:

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IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc., Defendants.	Civil Action No.

COMPLAINT

The United States of America, by authority of the Attorney General of the United States and at the request of the Administrator of the United States Environmental Protection Agency ("EPA"), files this complaint and alleges as follows:

NATURE OF ACTION

1. This is a civil action brought pursuant to Sections 204 and 205 of the Clean Air Act ("Act"), 42 U.S.C. §§ 7523 and 7524, for injunctive relief and the assessment of civil penalties against Volkswagen AG, Audi AG, Volkswagen Group of America, Inc. ("VWoA"), Volkswagen Group of America Chattanooga Operations, LLC ("VWoA Chattanooga"), Dr. Ing. h.c. F. Porsche AG ("Porsche AG"), and Porsche Cars North America, Inc. (collectively, "VW") for violations of the Act and regulations promulgated thereunder.

JURISDICTION AND VENUE

2. This Court has jurisdiction over the subject matter of and the parties to this action pursuant to Sections 203, 204, and 205 of the Act, 42 U.S.C. §§ 7522, 7523, and 7524, and 28 U.S.C. §§ 1331, 1345, and 1355.

3. This Court has personal jurisdiction over Defendant Volkswagen AG under Mich. Comp. Laws § 600.705 because Volkswagen AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Defendant Volkswagen AG is consistent with due process.

4. Among other things, Defendant Volkswagen AG interacts with Defendant VWoA, its wholly-owned subsidiary, which has an office in Auburn Hills, Michigan and this judicial district, by regularly submitting information to VWoA necessary for VWoA to complete the required applications to obtain certificates of conformity ("COCs") for a significant number of the vehicles Volkswagen AG sells in the United States. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with its wholly-owned subsidiary, Volkswagen AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Volkswagen AG has also attended meetings at, and had other communications with, EPA's Ann Arbor, Michigan Office of Transportation and Air Quality ("OTAQ"), the EPA office in charge of issuing COCs. Further, Volkswagen AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

5. This Court has personal jurisdiction over Defendant VWoA under Mich. Comp. Laws § 600.705 because it transacts business in Michigan. In addition, this Court's exercise of

VW FOIA, EPA 06/20/2017 2017-FFP_036886

jurisdiction over VWoA is consistent with due process.

6. Among other things, VWoA has an Engineering and Environmental Office in Auburn Hills, Michigan from which it interacts with EPA OTAQ in connection with obtaining many of the COCs for vehicles sold in the United States, including many of the light duty diesel vehicles addressed in this Complaint. Further, VWoA delivered or arranged for delivery of many of the vehicles addressed in this Complaint, within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

7. This Court has personal jurisdiction over Defendant Audi AG under Mich. Comp. Laws § 600.705 because Audi AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Audi AG is consistent with due process.

8. Among other things, Audi AG has interacted with VWoA's Auburn Hills, Michigan office by regularly submitting information to VWoA's Auburn Hills office necessary for VWoA to complete the required applications to obtain COCs for the vehicles that Audi AG sells in the United States, including the light duty diesel vehicles addressed in this Complaint. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with VWoA, Audi AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Audi AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Audi AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

9. This Court has personal jurisdiction over Defendant Volkswagen Group of America

VW FOIA, EPA 06/20/2017 2017-FFP_036887

Chattanooga Operations, LLC, under Mich. Comp. Laws § 600.705 because VWoA Chattanooga transacts business in Michigan. In addition, this Court's exercise of jurisdiction over VWoA Chattanooga is consistent with due process.

10. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, VWoA is the corporate parent of VWoA Chattanooga; VWoA Chattanooga manufactures certain Passats; VWoA Chattanooga interacts with VWoA, in connection with vehicle manufacturing and other matters; in connection with this and other interactions with its parent company, VWoA Chattanooga has attended meetings at VWoA's Auburn Hills, Michigan office and/or corresponded, telephoned and otherwise communicated with VWoA's Auburn Hills office. Further, VWoA Chattanooga delivered or arranged for delivery of its cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

11. This Court has personal jurisdiction over Defendant Porsche AG under Mich. Comp. Laws § 600.705 because Porsche AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche AG is consistent with due process.

12. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche AG has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche AG has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor,

VW FOIA, EPA 06/20/2017 2017-FFP_036888

Michigan. Further, Porsche AG delivered or arranged for delivery of Porsche cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

13. This Court has personal jurisdiction over Defendant Porsche Cars North America, Inc. under Mich. Comp. Laws § 600.705 because Porsche Cars North America, Inc. transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche Cars North America, Inc. is consistent with due process.

14. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche Cars North America, Inc. has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche Cars North America, Inc. has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche Cars North America, Inc. has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Porsche Cars North America, Inc. delivered or arranged for delivery of Porsche cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

15. Venue is proper in this jurisdiction pursuant to Sections 204 and 205 of the Act, 42 U.S.C. §§ 7523 and 7524, because violations occurred in this judicial district and VWoA has a corporate office within this judicial district.

VW FOIA, EPA 06/20/2017 2017-FFP_036889

DEFENDANTS

16. Volkswagen AG is a publicly-held German corporation.

17. Volkswagen AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

18. Volkswagen AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

19. Volkswagen Group of America, Inc. is incorporated under the laws of the State of New Jersey, and is a wholly-owned subsidiary of Volkswagen AG.

20. Volkswagen Group of America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

21. Volkswagen Group of America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

22. Volkswagen Group of America Chattanooga Operations, LLC is incorporated under the laws of the State of Tennessee, and is a wholly-owned subsidiary of VWoA.

23. Volkswagen Group of America Chattanooga Operations, LLC is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

24. Volkswagen Group of America Chattanooga Operations, LLC is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

25. Audi AG is a German corporation, and is approximately 99.55% owned by Volkswagen AG.

26. Audi AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

VW FOIA, EPA 06/20/2017 2017-FFP_036890

27. Audi AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

28. Porsche AG is a German corporation, and is wholly-owned by Volkswagen AG.

29. Porsche AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

30. Porsche AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

31. Porsche Cars North America, Inc. is a Delaware corporation, and is a wholly-owned subsidiary of Porsche AG.

32. Porsche Cars North America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

33. Porsche Cars North America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

34. At all times relevant to this action, VW was engaged in the business of manufacturing new motor vehicles, and selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing (or causing the foregoing with respect to) these vehicles in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_036891

STATUTORY AND REGULATORY BACKGROUND

35. This action arises under Title II of the Act, as amended, 42 U.S.C. § 7521 *et seq.*, and the regulations promulgated thereunder, which aim to protect human health and the environment by reducing emissions of nitrogen oxides ("NOx") and other pollutants from mobile sources of air pollution, including new motor vehicles.

36. NOx is a family of highly reactive gases that play a major role in the atmospheric reactions with volatile organic compounds that produce ozone in the atmosphere. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Breathing ozone can also worsen bronchitis, emphysema, and asthma, and can lead to premature death. Children are at greatest risk of experiencing negative health impacts from exposure to ozone. Additionally, recent scientific studies indicate that the direct health effects of NOx are worse than previously understood, including respiratory problems, damage to lung tissue, and premature death.

37. Section 202(a) of the Act, 42 U.S.C. § 7521(a), requires EPA to promulgate emissions standards for new motor vehicles for NOx, and other air pollutants.

38. 40 C.F.R. Part 86 sets emission standards and test procedures for light-duty motor vehicles, including emission standards for NOx. *See* 40 C.F.R. § 86.1811-04.

A. Certificates of Conformity and Prohibition on Uncertified Motor Vehicles

39. Light-duty vehicles must satisfy emission standards for certain air pollutants. 40 C.F.R. §§ 86.1811-04, 86.1811-09, 86.1811-10. EPA administers a certification program to ensure that every new motor vehicle introduced into United States commerce satisfies applicable emission standards. 42 U.S.C. § 7521. Under this program, EPA issues COCs and thereby

VW FOIA, EPA 06/20/2017 2017-FFP_036892

regulates the introduction of new motor vehicles into United States commerce.

40. To obtain a COC, a manufacturer must submit an application to EPA for each model year and for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1843-01. A test group is comprised of vehicles with similar emissions profiles for pollutants regulated under the Act. *See, e.g.,* 40 C.F.R. §§ 86.1803-01, 86.1827-01.

41. Vehicles are covered by a COC only if the vehicles are as described in the manufacturer's application for the COC "in all material respects." 40 C.F.R. § 86.1848-10(c)(6).

42. EPA issues COCs "upon such terms . . . as [the Administrator] may prescribe." 42 U.S.C. § 7525(a)(1); *see also* 40 C.F.R. § 86.1848-01(b) (authorizing EPA to issue COCs on any terms that are necessary and appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

43. Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), prohibits manufacturers of new motor vehicles from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or any person from importing into the United States any new motor vehicle not covered by a COC issued by EPA under regulations prescribed by the Act governing vehicle emission standards. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

B. Prohibition on Defeat Devices and Tampering

44. Each COC application must include, among other things, a list of all auxiliary emission control devices ("AECDs") installed on the vehicles. 40 C.F.R. § 86.1844-01(d)(11).

45. An AECD is "any element of design which senses temperature, vehicle speed, engine [revolutions per minute], transmission gear, manifold vacuum, or any other parameter for

VW FOIA, EPA 06/20/2017 2017-FFP_036893

the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.1803-01.

46. An element of design is "any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine." 40 C.F.R. § 86.1803-01.

47. Each COC application must also include "a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device." 40 C.F.R. § 86.1844-01(d)(11).

48. A motor vehicle containing an AECD that can reasonably be expected to affect emission controls and is not disclosed or justified in the COC application does not conform in all material respects with the COC application, and is therefore not covered by the COC.

49. A "defeat device" is an AECD "that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . . . ." 40 C.F.R. § 86.1803-01.

50. Motor vehicles equipped with defeat devices cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86.1809-01, 86.1809-10, 86.1809-12.

VW FOIA, EPA 06/20/2017 2017-FFP_036894

51. Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." *See also* 40 C.F.R. § 86.1854-12(a)(3)(ii).

52. Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), prohibits any person from removing or rendering inoperative any device or element of design installed on a motor vehicle in compliance with the regulations promulgated under Title II of the Act prior to its sale and delivery to the ultimate purchaser.

53. It is also a violation to cause any of the acts set forth in Section 203(a)(3). 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

C. Reporting Requirements

54. Section 208(a) of the Act, 42 U.S.C. § 7542(a), requires that "[e]very manufacturer of new motor vehicles . . . establish and maintain records, perform tests . . . make reports, and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting in compliance" with Part A of Title II of the Act.

55. Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), prohibits any person from failing or refusing to make reports or provide information to EPA pursuant to Section 208 of the

VW FOIA, EPA 06/20/2017 2017-FFP_036895

Act, 42 U.S.C. § 7542. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

GENERAL ALLEGATIONS

56. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix A to this Complaint ("2.0L Subject Vehicles").

57. Each of the 2.0L Subject Vehicles is equipped with a 2.0 liter diesel engine, and is part of model years 2009-2015.

58. In total, approximately 500,000 2.0L Subject Vehicles were sold in the United States.

59. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for the 2.0L Subject Vehicles.

60. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix B to this Complaint ("3.0L Subject Vehicles").

61. Each of the 3.0L Subject Vehicles is equipped with a 3.0 liter diesel engine, and is part of model years 2009-2016.

62. In total, approximately 80,000 3.0L Subject Vehicles were sold in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_036896

63. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for certain 3.0L Subject Vehicles.

64. Porsche Cars North America, Inc. submitted to EPA, on behalf of itself, and representing Porsche AG, the applications for COCs for certain 3.0L Subject Vehicles.

65. Each COC issued by EPA during the time period relevant to this Complaint states on its face that the certificate covers only those new motor vehicles that conform, in all material respects, to the design specifications provided to EPA in the certificate application for such vehicle.

66. Each application for a COC constitutes a "report [and/or] information the Administrator may reasonably require . . ." to assess compliance with the Act, within the meaning of Section 208(a) of the Act, 42 U.S.C. § 7542(a).

A. The 2.0L Subject Vehicles

67. Each 2.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 2.0L Subject Vehicle.

68. The electronic control module ("ECM") of the 2.0L Subject Vehicles contains software logic and/or calibrations that sense when the vehicle is being tested for compliance with applicable emission standards, based on various inputs including the position of the steering wheel, vehicle speed, the duration of the engine's operation, and barometric pressure. These inputs precisely track the parameters of the federal test procedure ("FTP") and other test cycles used for emission testing required to obtain a COC.

VW FOIA, EPA 06/20/2017 2017-FFP_036897

69. During FTP emission testing, the 2.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration that VW has referred to as the "dyno calibration" (referring to the equipment used in emissions testing, called a dynamometer). At all other times during normal vehicle operation, the 2.0L Subject Vehicles' ECM software run a separate "road calibration" that reduces the effectiveness of the emission control system. In other words, the 2.0L Subject Vehicles' ECM software tracks the parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

70. The COC applications for the 2.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 2.0L Subject Vehicles' COC applications.

71. The 2.0L Subject Vehicles therefore are not covered by a COC.

72. This dual-calibration system results in increased NOx emissions by a factor of up to 40 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

73. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

74. VW entities including at least Volkswagen AG, VWoA and Audi AG knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

VW FOIA, EPA 06/20/2017 2017-FFP_036898

75. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

B. The 3.0L Subject Vehicles

76. Each 3.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 3.0L Subject Vehicles.

77. The ECM of the 3.0L Subject Vehicles contains software logic and/or calibrations that cause the vehicle to perform differently when the vehicle is being tested for compliance with applicable emission standards, based on various inputs that appear to track the FTP and/or other test cycles used for emission testing required to obtain a COC, than when the vehicle is in normal operation and use.

78. During FTP emission testing, the 3.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration referred to as the "temperature conditioning mode." At other times during normal vehicle operation, the 3.0L Subject Vehicles' ECM software run a separate "normal mode" that reduces the effectiveness of the emission control system. In other words, the 3.0L Subject Vehicles' ECM software tracks certain parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

79. The COC applications for the 3.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The

VW FOIA, EPA 06/20/2017 2017-FFP_036899

undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 3.0L Subject Vehicles' COC applications.

80. The 3.0L Subject Vehicles therefore are not covered by a COC.

81. This dual-calibration strategy results in increased NOx emissions by a factor of up to 9 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

82. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

83. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG and Porsche Cars North America, Inc. knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

84. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_036900

C. The Investigations and Concealment

85. In or about May 2014, West Virginia University's Center for Alternative Fuels, Engines & Emissions ("WVU") published results of a study commissioned by the International Council on Clean Transportation, and conducted in collaboration with the California Air Resources Board ("CARB"), that found on-road NOx emissions from two 2.0L VW light duty diesel vehicles (2012 Jetta and 2013 Passat) were significantly higher than the applicable emission standards established by EPA regulations.

86. Beginning in or about May 2014 through the present, CARB, in coordination with EPA, has investigated the reasons for the high in-use emissions, repeatedly questioning representatives from VWoA and Volkswagen AG about WVU's findings.

87. In or about October 2014, those VW entities responded that the increased emissions from the vehicles studied by WVU were attributable to various yet-to-be-identified technical issues with the after treatment emission control systems and in-use conditions not represented by the FTP.

88. VW entities including at least VWoA represented to regulators that the vehicles' software could be optimized to address the excess NOx emissions issue and issued a recall in December 2014 and March 2015 for 2.0L vehicles to address the excess emissions issue.

89. From approximately December 2014 through the present, CARB, in coordination with EPA, conducted its own testing to further investigate the reasons behind the high NOx emissions observed on VW's 2.0L light duty diesel vehicles during real world driving conditions, and to investigate the effectiveness of the recall action. This on-road and laboratory testing showed limited reduction in the rates of emission of NOx of the recalled vehicles, and also

VW FOIA, EPA 06/20/2017 2017-FFP_036901

revealed that the vehicles exhibited different behaviors during real world driving conditions than during FTP emission testing.

90. During the course of this investigation, VW entities including at least VWoA and Volkswagen AG suggested a number of potential technical issues and in-use conditions that might explain the higher emission test results, but none of those issues adequately explained why the 2.0L Subject Vehicles behaved differently while operating on the FTP test cycles versus while being driven on the road.

91. In or about September 2015, VW entities including at least VWoA and Volkswagen AG admitted that these 2.0L motor vehicles contained a defeat device in the form of a software algorithm or algorithms that detect when the vehicle is undergoing emission testing.

92. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 2.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least VWoA and Volkswagen AG.

93. VW entities including at least Volkswagen AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 2.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

94. On October 8, 2015, Mr. Michael Horn, VWoA President and Chief Executive Officer, testified before the United States House of Representatives Subcommittee on Oversight and Investigations Committee on Energy and Commerce, and admitted that VWoA and

VW FOIA, EPA 06/20/2017 2017-FFP_036902

Volkswagen AG's representations to EPA and CARB that the increased NOx emissions from the 2.0L Subject Vehicles were due to technical issues were false.

95. During his October 8, 2015 testimony, Mr. Horn further admitted that the installation of the "defeat device" in the 2.0L Subject Vehicles was a knowing and willful decision to deceive.

96. Even after EPA issued its September 18, 2015 Notice of Violation to Volkswagen AG, Audi AG, and VWoA, and Mr. Horn's testimony before Congress, VW failed to come forward and reveal to regulators that the 3.0L Subject Vehicles contain one or more undisclosed AECDs, including the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode." The existence of this dual calibration strategy was uncovered only as a result of EPA and CARB's diligence.

97. On November 2, 2015, EPA issued a Notice of Violation to Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc., citing violations of the Act related to the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode," and the resultant excess emissions in certain 3.0L light duty diesel vehicles.

98. VW entities including at least Volkswagen AG immediately issued a statement denying that software had been installed in 3.0L light duty diesel vehicles to alter emissions in a prohibited manner.

99. On or about November 23, 2015, VW entities including at least Volkswagen AG and Audi AG admitted that the 3.0L Subject Vehicles contain three undisclosed AECDs, one of which – the temperature conditioning mode – is regarded as a defeat device under the Act and implementing regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_036903

100. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 3.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least Volkswagen AG and Audi AG.

101. VW entities including at least Audi AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 3.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

FIRST CLAIM FOR RELIEF
(Section 203(a)(1): Sale, Offer for Sale, Introduction or Delivery for Introduction into Commerce, or Import of New Motor Vehicles Not Covered by COCs)

102. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

103. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 500,000 2.0L Subject Vehicles that were not covered by COCs (or caused any of the foregoing) because the 2.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 2.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 2.0L Subject Vehicles' emission controls.

104. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 80,000 3.0L Subject Vehicles that were not covered by COCs (or

VW FOIA, EPA 06/20/2017 2017-FFP_036904

caused any of the foregoing) because the 3.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 3.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 3.0L Subject Vehicles' emission controls.

105. VW violated Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), by selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing new motor vehicles that were not covered by a COC, or by causing any of the foregoing acts.

106. Each such violation of Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), is a separate offense with respect to each new motor vehicle.

107. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW is liable for injunctive relief and civil penalties of up to $32,500 per vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

SECOND CLAIM FOR RELIEF
(Section 203(a)(3)(B): Manufacture, Sale, Offer for Sale, or Installation of Defeat Device)

108. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

109. VW entities including at least Volkswagen AG, VWoA and Audi AG manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended for use with, or as part of, motor vehicles, including the road-calibration AECDs installed on the 2.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 2.0L

VW FOIA, EPA 06/20/2017 2017-FFP_036905

Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Volkswagen AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

110. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended or use with, or as part of, motor vehicles, including the normal mode calibration AECDs installed on the 3.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 3.0L Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Audi AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

111. VW entities including at least Volkswagen AG and Audi AG violated Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), by manufacturing, selling, offering for sale, or installing "defeat devices" on new motor vehicles, or by causing any of the foregoing acts.

112. Each part or component that constitutes a "defeat device" manufactured, sold, offered for sale, or installed on new motor vehicles (or the causing thereof) is a separate violation of Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B).

113. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG and Audi AG are liable for injunctive relief and civil penalties of up to $2,750 per part or component that constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $3,750 per part or component that

VW FOIA, EPA 06/20/2017 2017-FFP_036906

constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

THIRD CLAIM FOR RELIEF
(Section 203(a)(3)(A): Tampering)

114. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

115. The road-calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

116. The normal mode calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

117. VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the road-calibration AECDs in the 2.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

118. VW entities including at least Volkswagen AG, Audi AG and Porsche AG violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the normal mode calibration AECDs in the 3.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

VW FOIA, EPA 06/20/2017 2017-FFP_036907

119. Each 2.0L Subject Vehicle equipped with the road-calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

120. Each 3.0L Subject Vehicle equipped with the normal mode calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and Porsche AG of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

121. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG and Porsche AG are liable for injunctive relief and civil penalties of up to $32,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

FOURTH CLAIM FOR RELIEF
(Section 203(a)(2): Reporting Violations)

122. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

123. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to disclose the existence of the road-calibration and/or other AECDs in the COC applications for the 2.0L Subject Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

124. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to disclose the existence of the normal mode calibration and/or other AECDs in the COC applications for the 3.0L Subject

VW FOIA, EPA 06/20/2017 2017-FFP_036908

Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

125. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to provide a justification for the road-calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the road-calibration and/or other AECDs are not a defeat device, in the COC applications for the 2.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

126. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to provide a justification for the normal mode calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the normal mode calibration and/or other AECDs are not a defeat device, in the COC applications for the 3.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

127. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to disclose one or more AECDs in a COC application for a test group of new motor vehicles.

128. VW entities including at least Volkswagen AG, Audi AG and VWoA violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 2.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

VW FOIA, EPA 06/20/2017 2017-FFP_036909

129. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 3.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

130. Each failure to provide reports or information described above is a separate violation of Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2).

131. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. are liable for injunctive relief and civil penalties of up to $32,500 per day of violation of Section 203(a)(2) occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per day of violation for such violations occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff, the United States of America, respectfully requests that the Court provide the following relief:

a. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle not covered by a COC issued by EPA in accordance with the Act and the regulations promulgated thereunder.

b. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the

VW FOIA, EPA 06/20/2017 2017-FFP_036910

foregoing acts) any new motor vehicle equipped with an AECD, except in compliance with the Act and the regulations promulgated thereunder.

c. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle equipped with a defeat device.

d. Permanently enjoin VW from bypassing, defeating, or rendering inoperative any device or element of design installed on or in a new motor vehicle in compliance with regulations promulgated under Title II of the Act.

e. Order VW to take appropriate steps, including, but not limited to, mitigation of excess NOx emissions, to remedy the violations of Sections 203(a)(1), 203(a)(3)(A), and 203(a)(3)(B) alleged above.

f. Enter a judgment that VW is liable to the United States for civil penalties for each violation of Section 203(a) of the Act, and assess civil penalties against VW as follows:

i. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(1) of the Act;

ii. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(A) of the Act;

VW FOIA, EPA 06/20/2017 2017-FFP_036911

iii. up to $2,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $3,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(B) of the Act; and

iv. up to $32,500 per day of violation occurring before January 13, 2009, and up to $37,500 per day of violation occurring on or after January 13, 2009 for violations of Section 203(a)(2) of the Act.

g. Award the United States its costs in this action; and

h. Grant such other and further relief as the Court deems just and proper.

VW FOIA, EPA 06/20/2017 2017-FFP_036912

Respectfully submitted,

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VW FOIA, EPA 06/20/2017 2017-FFP_036913

United States v. Volkswagen AG, et al.

APPENDIX A TO COMPLAINT

Identification of the 2.0L Subject Vehicles

Model Year	EPA Test Group	Vehicle Make and Model(s)
2009	9VWXV02.035N	VW Jetta, VW Jetta Sportwagen
2009	9VWXV02.0U5N	VW Jetta, VW Jetta Sportwagen
2010	AVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2011	BVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U4S	VW Passat
2013	DVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2013	DVWXV02.0U4S	VW Passat
2014	EVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2014	EVWXV02.0U4S	VW Passat
2015	FVGAV02.0VAL	VW Beetle, VW Beetle Convertible, VW Golf, VW Golf Sportwagen, VW Jetta, VW Passat, Audi A3

United States v. Volkswagen AG, et al.

APPENDIX B TO COMPLAINT

Identification of the 3.0L Subject Vehicles

Model Year	EPA Test Group(s)	Vehicle Make and Model(s)
2009	9ADXT03.03LD	VW Touareg, Audi Q7
2010	AADXT03.03LD	VW Touareg, Audi Q7
2011	BADXT03.02UG BADXT03.03UG	VW Touareg Audi Q7
2012	CADXT03.02UG CADXT03.03UG	VW Touareg Audi Q7
2013	DADXT03.02UG DADXT03.03UG DPRXT03.0CDD	VW Touareg Audi Q7 Cayenne Diesel
2014	EADXT03.02UG EADXT03.03UG EPRXT03.0CDD EADXJ03.04UG	VW Touareg Audi Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2015	FVGAT03.0NU2 FVGAT03.0NU3 FPRXT03.0CDD FVGAJ03.0NU4	VW Touareg Audi: Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2016	GVGAT03.0NU2 GPRXT03.0CDD GVGAJ03.0NU4	VW Touareg Cayenne Diesel A6 quattro, A7 quattro,A8, A8L, Q5

BEFORE THE UNITED STATES JUDICIAL PANEL ON MULTIDISTRICT LITIGATION

In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation	)	**MDL NO. 2672**

NOTICE OF POTENTIAL TAG-ALONG ACTION

The United States of America hereby notifies the Clerk of the United States Judicial Panel on Multidistrict Litigation of the following potential tag-along action.

Case Name	Case No.	Court	Judge
United States of America v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc.	2:16-cv-10006	United States District Court for the Eastern District of Michigan	District Judge Laurie J. Michelson

A copy of the United States' complaint and corresponding docket sheet are attached hereto as Exhibit 1. As the United States' complaint involves common factual questions with those actions transferred to the Honorable Charles R. Breyer of the United States District Court for the Northern District of California, the United States requests inclusion of this action in the multi-district litigation for coordinated pretrial proceedings.

VW FOIA, EPA 06/20/2017 2017-FFP_036916

Respectfully submitted,

For the United States of America

Dated: January 4, 2016

JOHN C. CRUDEN
Assistant Attorney General
Environment and Natural Resources Division
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VW FOIA, EPA 06/20/2017 2017-FFP_036917

BEFORE THE UNITED STATES JUDICIAL PANEL ON MULTIDISTRICT LITIGATION

In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation	)	**MDL NO. 2672**

SCHEDULE OF ACTIONS

Case Name	Case No.	Court	Judge
United States of America v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc.	2:16-cv-10006	United States District Court for the Eastern District of Michigan	District Judge Laurie J. Michelson

VW FOIA, EPA 06/20/2017 2017-FFP_036918

BEFORE THE UNITED STATES JUDICIAL PANEL ON MULTIDISTRICT LITIGATION

In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation	)	**MDL NO. 2672**

PROOF OF SERVICE

I hereby certify that an electronic copy of the foregoing Notice of Potential Tag-Along Action, and attached Schedule of Actions and Proof of Service, were filed in MDL No. 2672 on January 4, 2016, and were served by the Panel's CM/ECF service on all counsel of record and interested parties.

Respectfully submitted,

Dated: January 4, 2016

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VW FOIA, EPA 06/20/2017 2017-FFP_036919

EXHIBIT 1

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc., Defendants.	Civil Action No.

COMPLAINT

The United States of America, by authority of the Attorney General of the United States and at the request of the Administrator of the United States Environmental Protection Agency ("EPA"), files this complaint and alleges as follows:

NATURE OF ACTION

1. This is a civil action brought pursuant to Sections 204 and 205 of the Clean Air Act ("Act"), 42 U.S.C. §§ 7523 and 7524, for injunctive relief and the assessment of civil penalties against Volkswagen AG, Audi AG, Volkswagen Group of America, Inc. ("VWoA"), Volkswagen Group of America Chattanooga Operations, LLC ("VWoA Chattanooga"), Dr. Ing. h.c. F. Porsche AG ("Porsche AG"), and Porsche Cars North America, Inc. (collectively, "VW") for violations of the Act and regulations promulgated thereunder.

JURISDICTION AND VENUE

2. This Court has jurisdiction over the subject matter of and the parties to this action pursuant to Sections 203, 204, and 205 of the Act, 42 U.S.C. §§ 7522, 7523, and 7524, and 28 U.S.C. §§ 1331, 1345, and 1355.

3. This Court has personal jurisdiction over Defendant Volkswagen AG under Mich. Comp. Laws § 600.705 because Volkswagen AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Defendant Volkswagen AG is consistent with due process.

4. Among other things, Defendant Volkswagen AG interacts with Defendant VWoA, its wholly-owned subsidiary, which has an office in Auburn Hills, Michigan and this judicial district, by regularly submitting information to VWoA necessary for VWoA to complete the required applications to obtain certificates of conformity ("COCs") for a significant number of the vehicles Volkswagen AG sells in the United States. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with its wholly-owned subsidiary, Volkswagen AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Volkswagen AG has also attended meetings at, and had other communications with, EPA's Ann Arbor, Michigan Office of Transportation and Air Quality ("OTAQ"), the EPA office in charge of issuing COCs. Further, Volkswagen AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

5. This Court has personal jurisdiction over Defendant VWoA under Mich. Comp. Laws § 600.705 because it transacts business in Michigan. In addition, this Court's exercise of

jurisdiction over VWoA is consistent with due process.

6. Among other things, VWoA has an Engineering and Environmental Office in Auburn Hills, Michigan from which it interacts with EPA OTAQ in connection with obtaining many of the COCs for vehicles sold in the United States, including many of the light duty diesel vehicles addressed in this Complaint. Further, VWoA delivered or arranged for delivery of many of the vehicles addressed in this Complaint, within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

7. This Court has personal jurisdiction over Defendant Audi AG under Mich. Comp. Laws § 600.705 because Audi AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Audi AG is consistent with due process.

8. Among other things, Audi AG has interacted with VWoA's Auburn Hills, Michigan office by regularly submitting information to VWoA's Auburn Hills office necessary for VWoA to complete the required applications to obtain COCs for the vehicles that Audi AG sells in the United States, including the light duty diesel vehicles addressed in this Complaint. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with VWoA, Audi AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Audi AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Audi AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

9. This Court has personal jurisdiction over Defendant Volkswagen Group of America

VW FOIA, EPA 06/20/2017 2017-FFP_036923

Chattanooga Operations, LLC, under Mich. Comp. Laws § 600.705 because VWoA Chattanooga transacts business in Michigan. In addition, this Court's exercise of jurisdiction over VWoA Chattanooga is consistent with due process.

10. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, VWoA is the corporate parent of VWoA Chattanooga; VWoA Chattanooga manufactures certain Passats; VWoA Chattanooga interacts with VWoA, in connection with vehicle manufacturing and other matters; in connection with this and other interactions with its parent company, VWoA Chattanooga has attended meetings at VWoA's Auburn Hills, Michigan office and/or corresponded, telephoned and otherwise communicated with VWoA's Auburn Hills office. Further, VWoA Chattanooga delivered or arranged for delivery of its cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

11. This Court has personal jurisdiction over Defendant Porsche AG under Mich. Comp. Laws § 600.705 because Porsche AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche AG is consistent with due process.

12. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche AG has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche AG has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor,

Michigan. Further, Porsche AG delivered or arranged for delivery of Porsche cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

13. This Court has personal jurisdiction over Defendant Porsche Cars North America, Inc. under Mich. Comp. Laws § 600.705 because Porsche Cars North America, Inc. transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche Cars North America, Inc. is consistent with due process.

14. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche Cars North America, Inc. has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche Cars North America, Inc. has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche Cars North America, Inc. has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Porsche Cars North America, Inc. delivered or arranged for delivery of Porsche cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

15. Venue is proper in this jurisdiction pursuant to Sections 204 and 205 of the Act, 42 U.S.C. §§ 7523 and 7524, because violations occurred in this judicial district and VWoA has a corporate office within this judicial district.

VW FOIA, EPA 06/20/2017 2017-FFP_036925

DEFENDANTS

16. Volkswagen AG is a publicly-held German corporation.

17. Volkswagen AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

18. Volkswagen AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

19. Volkswagen Group of America, Inc. is incorporated under the laws of the State of New Jersey, and is a wholly-owned subsidiary of Volkswagen AG.

20. Volkswagen Group of America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

21. Volkswagen Group of America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

22. Volkswagen Group of America Chattanooga Operations, LLC is incorporated under the laws of the State of Tennessee, and is a wholly-owned subsidiary of VWoA.

23. Volkswagen Group of America Chattanooga Operations, LLC is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

24. Volkswagen Group of America Chattanooga Operations, LLC is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

25. Audi AG is a German corporation, and is approximately 99.55% owned by Volkswagen AG.

26. Audi AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

27. Audi AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

28. Porsche AG is a German corporation, and is wholly-owned by Volkswagen AG.

29. Porsche AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

30. Porsche AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

31. Porsche Cars North America, Inc. is a Delaware corporation, and is a wholly-owned subsidiary of Porsche AG.

32. Porsche Cars North America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

33. Porsche Cars North America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

34. At all times relevant to this action, VW was engaged in the business of manufacturing new motor vehicles, and selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing (or causing the foregoing with respect to) these vehicles in the United States.

STATUTORY AND REGULATORY BACKGROUND

35. This action arises under Title II of the Act, as amended, 42 U.S.C. § 7521 *et seq.*, and the regulations promulgated thereunder, which aim to protect human health and the environment by reducing emissions of nitrogen oxides ("NOx") and other pollutants from mobile sources of air pollution, including new motor vehicles.

36. NOx is a family of highly reactive gases that play a major role in the atmospheric reactions with volatile organic compounds that produce ozone in the atmosphere. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Breathing ozone can also worsen bronchitis, emphysema, and asthma, and can lead to premature death. Children are at greatest risk of experiencing negative health impacts from exposure to ozone. Additionally, recent scientific studies indicate that the direct health effects of NOx are worse than previously understood, including respiratory problems, damage to lung tissue, and premature death.

37. Section 202(a) of the Act, 42 U.S.C. § 7521(a), requires EPA to promulgate emissions standards for new motor vehicles for NOx, and other air pollutants.

38. 40 C.F.R. Part 86 sets emission standards and test procedures for light-duty motor vehicles, including emission standards for NOx. *See* 40 C.F.R. § 86.1811-04.

A. Certificates of Conformity and Prohibition on Uncertified Motor Vehicles

39. Light-duty vehicles must satisfy emission standards for certain air pollutants. 40 C.F.R. §§ 86.1811-04, 86.1811-09, 86.1811-10. EPA administers a certification program to ensure that every new motor vehicle introduced into United States commerce satisfies applicable emission standards. 42 U.S.C. § 7521. Under this program, EPA issues COCs and thereby

regulates the introduction of new motor vehicles into United States commerce.

40. To obtain a COC, a manufacturer must submit an application to EPA for each model year and for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1843-01. A test group is comprised of vehicles with similar emissions profiles for pollutants regulated under the Act. *See, e.g.,* 40 C.F.R. §§ 86.1803-01, 86.1827-01.

41. Vehicles are covered by a COC only if the vehicles are as described in the manufacturer's application for the COC "in all material respects." 40 C.F.R. § 86.1848-10(c)(6).

42. EPA issues COCs "upon such terms . . . as [the Administrator] may prescribe." 42 U.S.C. § 7525(a)(1); *see also* 40 C.F.R. § 86.1848-01(b) (authorizing EPA to issue COCs on any terms that are necessary and appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

43. Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), prohibits manufacturers of new motor vehicles from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or any person from importing into the United States any new motor vehicle not covered by a COC issued by EPA under regulations prescribed by the Act governing vehicle emission standards. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

B. Prohibition on Defeat Devices and Tampering

44. Each COC application must include, among other things, a list of all auxiliary emission control devices ("AECDs") installed on the vehicles. 40 C.F.R. § 86.1844-01(d)(11).

45. An AECD is "any element of design which senses temperature, vehicle speed, engine [revolutions per minute], transmission gear, manifold vacuum, or any other parameter for

the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.1803-01.

46. An element of design is "any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine." 40 C.F.R. § 86.1803-01.

47. Each COC application must also include "a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device." 40 C.F.R. § 86.1844-01(d)(11).

48. A motor vehicle containing an AECD that can reasonably be expected to affect emission controls and is not disclosed or justified in the COC application does not conform in all material respects with the COC application, and is therefore not covered by the COC.

49. A "defeat device" is an AECD "that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . . . ." 40 C.F.R. § 86.1803-01.

50. Motor vehicles equipped with defeat devices cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86.1809-01, 86.1809-10, 86.1809-12.

51. Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." *See also* 40 C.F.R. § 86.1854-12(a)(3)(ii).

52. Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), prohibits any person from removing or rendering inoperative any device or element of design installed on a motor vehicle in compliance with the regulations promulgated under Title II of the Act prior to its sale and delivery to the ultimate purchaser.

53. It is also a violation to cause any of the acts set forth in Section 203(a)(3). 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

C. Reporting Requirements

54. Section 208(a) of the Act, 42 U.S.C. § 7542(a), requires that "[e]very manufacturer of new motor vehicles . . . establish and maintain records, perform tests . . . make reports, and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting in compliance" with Part A of Title II of the Act.

55. Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), prohibits any person from failing or refusing to make reports or provide information to EPA pursuant to Section 208 of the

Act, 42 U.S.C. § 7542. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

GENERAL ALLEGATIONS

56. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix A to this Complaint ("2.0L Subject Vehicles").

57. Each of the 2.0L Subject Vehicles is equipped with a 2.0 liter diesel engine, and is part of model years 2009-2015.

58. In total, approximately 500,000 2.0L Subject Vehicles were sold in the United States.

59. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for the 2.0L Subject Vehicles.

60. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix B to this Complaint ("3.0L Subject Vehicles").

61. Each of the 3.0L Subject Vehicles is equipped with a 3.0 liter diesel engine, and is part of model years 2009-2016.

62. In total, approximately 80,000 3.0L Subject Vehicles were sold in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_036932

63. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for certain 3.0L Subject Vehicles.

64. Porsche Cars North America, Inc. submitted to EPA, on behalf of itself, and representing Porsche AG, the applications for COCs for certain 3.0L Subject Vehicles.

65. Each COC issued by EPA during the time period relevant to this Complaint states on its face that the certificate covers only those new motor vehicles that conform, in all material respects, to the design specifications provided to EPA in the certificate application for such vehicle.

66. Each application for a COC constitutes a "report [and/or] information the Administrator may reasonably require . . ." to assess compliance with the Act, within the meaning of Section 208(a) of the Act, 42 U.S.C. § 7542(a).

A. The 2.0L Subject Vehicles

67. Each 2.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 2.0L Subject Vehicle.

68. The electronic control module ("ECM") of the 2.0L Subject Vehicles contains software logic and/or calibrations that sense when the vehicle is being tested for compliance with applicable emission standards, based on various inputs including the position of the steering wheel, vehicle speed, the duration of the engine's operation, and barometric pressure. These inputs precisely track the parameters of the federal test procedure ("FTP") and other test cycles used for emission testing required to obtain a COC.

69. During FTP emission testing, the 2.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration that VW has referred to as the "dyno calibration" (referring to the equipment used in emissions testing, called a dynamometer). At all other times during normal vehicle operation, the 2.0L Subject Vehicles' ECM software run a separate "road calibration" that reduces the effectiveness of the emission control system. In other words, the 2.0L Subject Vehicles' ECM software tracks the parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

70. The COC applications for the 2.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 2.0L Subject Vehicles' COC applications.

71. The 2.0L Subject Vehicles therefore are not covered by a COC.

72. This dual-calibration system results in increased NOx emissions by a factor of up to 40 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

73. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

74. VW entities including at least Volkswagen AG, VWoA and Audi AG knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

75. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

B. The 3.0L Subject Vehicles

76. Each 3.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 3.0L Subject Vehicles.

77. The ECM of the 3.0L Subject Vehicles contains software logic and/or calibrations that cause the vehicle to perform differently when the vehicle is being tested for compliance with applicable emission standards, based on various inputs that appear to track the FTP and/or other test cycles used for emission testing required to obtain a COC, than when the vehicle is in normal operation and use.

78. During FTP emission testing, the 3.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration referred to as the "temperature conditioning mode." At other times during normal vehicle operation, the 3.0L Subject Vehicles' ECM software run a separate "normal mode" that reduces the effectiveness of the emission control system. In other words, the 3.0L Subject Vehicles' ECM software tracks certain parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

79. The COC applications for the 3.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The

VW FOIA, EPA 06/20/2017 2017-FFP_036935

undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 3.0L Subject Vehicles' COC applications.

80. The 3.0L Subject Vehicles therefore are not covered by a COC.

81. This dual-calibration strategy results in increased NOx emissions by a factor of up to 9 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

82. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

83. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG and Porsche Cars North America, Inc. knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

84. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_036936

C. The Investigations and Concealment

85. In or about May 2014, West Virginia University's Center for Alternative Fuels, Engines & Emissions ("WVU") published results of a study commissioned by the International Council on Clean Transportation, and conducted in collaboration with the California Air Resources Board ("CARB"), that found on-road NOx emissions from two 2.0L VW light duty diesel vehicles (2012 Jetta and 2013 Passat) were significantly higher than the applicable emission standards established by EPA regulations.

86. Beginning in or about May 2014 through the present, CARB, in coordination with EPA, has investigated the reasons for the high in-use emissions, repeatedly questioning representatives from VWoA and Volkswagen AG about WVU's findings.

87. In or about October 2014, those VW entities responded that the increased emissions from the vehicles studied by WVU were attributable to various yet-to-be-identified technical issues with the after treatment emission control systems and in-use conditions not represented by the FTP.

88. VW entities including at least VWoA represented to regulators that the vehicles' software could be optimized to address the excess NOx emissions issue and issued a recall in December 2014 and March 2015 for 2.0L vehicles to address the excess emissions issue.

89. From approximately December 2014 through the present, CARB, in coordination with EPA, conducted its own testing to further investigate the reasons behind the high NOx emissions observed on VW's 2.0L light duty diesel vehicles during real world driving conditions, and to investigate the effectiveness of the recall action. This on-road and laboratory testing showed limited reduction in the rates of emission of NOx of the recalled vehicles, and also

VW FOIA, EPA 06/20/2017 2017-FFP_036937

revealed that the vehicles exhibited different behaviors during real world driving conditions than during FTP emission testing.

90. During the course of this investigation, VW entities including at least VWoA and Volkswagen AG suggested a number of potential technical issues and in-use conditions that might explain the higher emission test results, but none of those issues adequately explained why the 2.0L Subject Vehicles behaved differently while operating on the FTP test cycles versus while being driven on the road.

91. In or about September 2015, VW entities including at least VWoA and Volkswagen AG admitted that these 2.0L motor vehicles contained a defeat device in the form of a software algorithm or algorithms that detect when the vehicle is undergoing emission testing.

92. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 2.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least VWoA and Volkswagen AG.

93. VW entities including at least Volkswagen AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 2.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

94. On October 8, 2015, Mr. Michael Horn, VWoA President and Chief Executive Officer, testified before the United States House of Representatives Subcommittee on Oversight and Investigations Committee on Energy and Commerce, and admitted that VWoA and

Volkswagen AG's representations to EPA and CARB that the increased NOx emissions from the 2.0L Subject Vehicles were due to technical issues were false.

95. During his October 8, 2015 testimony, Mr. Horn further admitted that the installation of the "defeat device" in the 2.0L Subject Vehicles was a knowing and willful decision to deceive.

96. Even after EPA issued its September 18, 2015 Notice of Violation to Volkswagen AG, Audi AG, and VWoA, and Mr. Horn's testimony before Congress, VW failed to come forward and reveal to regulators that the 3.0L Subject Vehicles contain one or more undisclosed AECDs, including the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode." The existence of this dual calibration strategy was uncovered only as a result of EPA and CARB's diligence.

97. On November 2, 2015, EPA issued a Notice of Violation to Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc., citing violations of the Act related to the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode," and the resultant excess emissions in certain 3.0L light duty diesel vehicles.

98. VW entities including at least Volkswagen AG immediately issued a statement denying that software had been installed in 3.0L light duty diesel vehicles to alter emissions in a prohibited manner.

99. On or about November 23, 2015, VW entities including at least Volkswagen AG and Audi AG admitted that the 3.0L Subject Vehicles contain three undisclosed AECDs, one of which – the temperature conditioning mode – is regarded as a defeat device under the Act and implementing regulations.

100. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 3.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least Volkswagen AG and Audi AG.

101. VW entities including at least Audi AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 3.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

FIRST CLAIM FOR RELIEF
(Section 203(a)(1): Sale, Offer for Sale, Introduction or Delivery for Introduction into Commerce, or Import of New Motor Vehicles Not Covered by COCs)

102. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

103. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 500,000 2.0L Subject Vehicles that were not covered by COCs (or caused any of the foregoing) because the 2.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 2.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 2.0L Subject Vehicles' emission controls.

104. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 80,000 3.0L Subject Vehicles that were not covered by COCs (or

VW FOIA, EPA 06/20/2017 2017-FFP_036940

caused any of the foregoing) because the 3.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 3.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 3.0L Subject Vehicles' emission controls.

105. VW violated Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), by selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing new motor vehicles that were not covered by a COC, or by causing any of the foregoing acts.

106. Each such violation of Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), is a separate offense with respect to each new motor vehicle.

107. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW is liable for injunctive relief and civil penalties of up to $32,500 per vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

SECOND CLAIM FOR RELIEF
(Section 203(a)(3)(B): Manufacture, Sale, Offer for Sale, or Installation of Defeat Device)

108. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

109. VW entities including at least Volkswagen AG, VWoA and Audi AG manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended for use with, or as part of, motor vehicles, including the road-calibration AECDs installed on the 2.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 2.0L

Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Volkswagen AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

110. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended or use with, or as part of, motor vehicles, including the normal mode calibration AECDs installed on the 3.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 3.0L Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Audi AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

111. VW entities including at least Volkswagen AG and Audi AG violated Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), by manufacturing, selling, offering for sale, or installing "defeat devices" on new motor vehicles, or by causing any of the foregoing acts.

112. Each part or component that constitutes a "defeat device" manufactured, sold, offered for sale, or installed on new motor vehicles (or the causing thereof) is a separate violation of Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B).

113. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG and Audi AG are liable for injunctive relief and civil penalties of up to $2,750 per part or component that constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $3,750 per part or component that

VW FOIA, EPA 06/20/2017 2017-FFP_036942

constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

THIRD CLAIM FOR RELIEF
(Section 203(a)(3)(A): Tampering)

114. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

115. The road-calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

116. The normal mode calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

117. VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the road-calibration AECDs in the 2.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

118. VW entities including at least Volkswagen AG, Audi AG and Porsche AG violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the normal mode calibration AECDs in the 3.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

VW FOIA, EPA 06/20/2017 2017-FFP_036943

119. Each 2.0L Subject Vehicle equipped with the road-calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

120. Each 3.0L Subject Vehicle equipped with the normal mode calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and Porsche AG of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

121. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG and Porsche AG are liable for injunctive relief and civil penalties of up to $32,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

FOURTH CLAIM FOR RELIEF
(Section 203(a)(2): Reporting Violations)

122. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

123. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to disclose the existence of the road-calibration and/or other AECDs in the COC applications for the 2.0L Subject Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

124. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to disclose the existence of the normal mode calibration and/or other AECDs in the COC applications for the 3.0L Subject

VW FOIA, EPA 06/20/2017 2017-FFP_036944

Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

125. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to provide a justification for the road-calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the road-calibration and/or other AECDs are not a defeat device, in the COC applications for the 2.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

126. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to provide a justification for the normal mode calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the normal mode calibration and/or other AECDs are not a defeat device, in the COC applications for the 3.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

127. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to disclose one or more AECDs in a COC application for a test group of new motor vehicles.

128. VW entities including at least Volkswagen AG, Audi AG and VWoA violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 2.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

129. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 3.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

130. Each failure to provide reports or information described above is a separate violation of Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2).

131. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. are liable for injunctive relief and civil penalties of up to $32,500 per day of violation of Section 203(a)(2) occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per day of violation for such violations occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff, the United States of America, respectfully requests that the Court provide the following relief:

a. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle not covered by a COC issued by EPA in accordance with the Act and the regulations promulgated thereunder.

b. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the

foregoing acts) any new motor vehicle equipped with an AECD, except in compliance with the Act and the regulations promulgated thereunder.

c. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle equipped with a defeat device.

d. Permanently enjoin VW from bypassing, defeating, or rendering inoperative any device or element of design installed on or in a new motor vehicle in compliance with regulations promulgated under Title II of the Act.

e. Order VW to take appropriate steps, including, but not limited to, mitigation of excess NOx emissions, to remedy the violations of Sections 203(a)(1), 203(a)(3)(A), and 203(a)(3)(B) alleged above.

f. Enter a judgment that VW is liable to the United States for civil penalties for each violation of Section 203(a) of the Act, and assess civil penalties against VW as follows:

i. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(1) of the Act;

ii. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(A) of the Act;

iii. up to $2,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $3,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(B) of the Act; and

iv. up to $32,500 per day of violation occurring before January 13, 2009, and up to $37,500 per day of violation occurring on or after January 13, 2009 for violations of Section 203(a)(2) of the Act.

g. Award the United States its costs in this action; and

h. Grant such other and further relief as the Court deems just and proper.

VW FOIA, EPA 06/20/2017 2017-FFP_036948

Respectfully submitted,

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VW FOIA, EPA 06/20/2017 2017-FFP_036949

United States v. Volkswagen AG, et al.

APPENDIX A TO COMPLAINT

Identification of the 2.0L Subject Vehicles

Model Year	EPA Test Group	Vehicle Make and Model(s)
2009	9VWXV02.035N	VW Jetta, VW Jetta Sportwagen
2009	9VWXV02.0U5N	VW Jetta, VW Jetta Sportwagen
2010	AVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2011	BVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U4S	VW Passat
2013	DVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2013	DVWXV02.0U4S	VW Passat
2014	EVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2014	EVWXV02.0U4S	VW Passat
2015	FVGAV02.0VAL	VW Beetle, VW Beetle Convertible, VW Golf, VW Golf Sportwagen, VW Jetta, VW Passat, Audi A3

United States v. Volkswagen AG, et al.

APPENDIX B TO COMPLAINT

Identification of the 3.0L Subject Vehicles

Model Year	EPA Test Group(s)	Vehicle Make and Model(s)
2009	9ADXT03.03LD	VW Touareg, Audi Q7
2010	AADXT03.03LD	VW Touareg, Audi Q7
2011	BADXT03.02UG BADXT03.03UG	VW Touareg Audi Q7
2012	CADXT03.02UG CADXT03.03UG	VW Touareg Audi Q7
2013	DADXT03.02UG DADXT03.03UG DPRXT03.0CDD	VW Touareg Audi Q7 Cayenne Diesel
2014	EADXT03.02UG EADXT03.03UG EPRXT03.0CDD EADXJ03.04UG	VW Touareg Audi Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2015	FVGAT03.0NU2 FVGAT03.0NU3 FPRXT03.0CDD FVGAJ03.0NU4	VW Touareg Audi: Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2016	GVGAT03.0NU2 GPRXT03.0CDD GVGAJ03.0NU4	VW Touareg Cayenne Diesel A6 quattro, A7 quattro,A8, A8L, Q5

U.S. District Court
Eastern District of Michigan (Detroit)
CIVIL DOCKET FOR CASE #: 2:16-cv-10006-LJM-MJH

United States of America v. Volkswagen AG et al
Assigned to: District Judge Laurie J. Michelson
Referred to: Magistrate Judge Michael J. Hluchaniuk
Cause: Civil Miscellaneous Case

Date Filed: 01/04/2016
Jury Demand: None
Nature of Suit: 893 Environmental Matters
Jurisdiction: U.S. Government Plaintiff

Plaintiff

United States of America represented by **Bethany Engel**
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ATTORNEY TO BE NOTICED

V.

Defendant

Volkswagen AG

Defendant

Audi AG

Defendant

Volkswagen Group of America, Inc.

Defendant

Volkswagen Group of America Chattanooga Operations LLC

Defendant

Porsche AG

Defendant

Porsche Cars North America, Inc.

Date Filed	#	Docket Text

VW FOIA, EPA 06/20/2017 2017-FFP_036952

01/04/2016	1	COMPLAINT filed by United States of America against All Defendants. Plaintiff requests summons issued. No Fee Required - US Government. County of 1st Plaintiff: USA - County Where Action Arose: USA - County of 1st Defendant: Out of Country. [Previously dismissed case: No] [Possible companion case(s): United States District Court for the Northern District of California, 3:15-md-02672, Judge Honorable Charles R. Breyer] (Engel, Bethany) (Entered: 01/04/2016)

PACER Service Center			
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Description:	Docket Report	Search Criteria:	2:16-cv-10006-LJM-MJH
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VW FOIA, EPA 06/20/2017 2017-FFP_036953

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From: Engel, Bethany (ENRD)
Sent: Mon 1/4/2016 6:41:25 PM
Subject: United States v. Volkswagen AG, et al.
ENV_ENFORCEMENT-#2565090-v1-VW_Notice_of_Potential_Tag_Along_as_Filed_in_MDL.PDF
ENV_ENFORCEMENT-#2565078-v1-VW__complaint_filed.PDF

All:

Attached please find a copy of a civil Clean Air Act complaint filed today by the United States, on behalf of EPA, against Volkswagen AG and several related entities in the US District Court for the Eastern District of Michigan. We have also filed a Notice of Potential Tag-Along Action with the Judicial Panel on Multidistrict Litigation, *In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Action (MDL No. 2672)*, attached.

If you get any press questions about the US filings, please refer them to Wyn Hornbuckle in our Office of Public Affairs, 202.514.2007 or wyn.hornbuckle@usdoj.gov.

Bethany Engel

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BEFORE THE UNITED STATES JUDICIAL PANEL ON MULTIDISTRICT LITIGATION

In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation	)	**MDL NO. 2672**

NOTICE OF POTENTIAL TAG-ALONG ACTION

The United States of America hereby notifies the Clerk of the United States Judicial Panel on Multidistrict Litigation of the following potential tag-along action.

Case Name	Case No.	Court	Judge
United States of America v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc.	2:16-cv-10006	United States District Court for the Eastern District of Michigan	District Judge Laurie J. Michelson

A copy of the United States' complaint and corresponding docket sheet are attached hereto as Exhibit 1. As the United States' complaint involves common factual questions with those actions transferred to the Honorable Charles R. Breyer of the United States District Court for the Northern District of California, the United States requests inclusion of this action in the multi-district litigation for coordinated pretrial proceedings.

VW FOIA, EPA 06/20/2017 2017-FFP_036956

Respectfully submitted,

For the United States of America

Dated: January 4, 2016

JOHN C. CRUDEN
Assistant Attorney General
Environment and Natural Resources Division
United States Department of Justice

/s/ Joshua Van Eaton
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VW FOIA, EPA 06/20/2017 2017-FFP_036957

BEFORE THE UNITED STATES JUDICIAL PANEL ON MULTIDISTRICT LITIGATION

In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation	)	**MDL NO. 2672**

SCHEDULE OF ACTIONS

Case Name	Case No.	Court	Judge
United States of America v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc.	2:16-cv-10006	United States District Court for the Eastern District of Michigan	District Judge Laurie J. Michelson

VW FOIA, EPA 06/20/2017 2017-FFP_036958

BEFORE THE UNITED STATES JUDICIAL PANEL ON MULTIDISTRICT LITIGATION

In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation	)	**MDL NO. 2672**

PROOF OF SERVICE

I hereby certify that an electronic copy of the foregoing Notice of Potential Tag-Along Action, and attached Schedule of Actions and Proof of Service, were filed in MDL No. 2672 on January 4, 2016, and were served by the Panel's CM/ECF service on all counsel of record and interested parties.

Respectfully submitted,

Dated: January 4, 2016

/s/ Joshua Van Eaton
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VW FOIA, EPA 06/20/2017 2017-FFP_036959

EXHIBIT 1

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc., Defendants.	Civil Action No.

COMPLAINT

The United States of America, by authority of the Attorney General of the United States and at the request of the Administrator of the United States Environmental Protection Agency ("EPA"), files this complaint and alleges as follows:

NATURE OF ACTION

1. This is a civil action brought pursuant to Sections 204 and 205 of the Clean Air Act ("Act"), 42 U.S.C. §§ 7523 and 7524, for injunctive relief and the assessment of civil penalties against Volkswagen AG, Audi AG, Volkswagen Group of America, Inc. ("VWoA"), Volkswagen Group of America Chattanooga Operations, LLC ("VWoA Chattanooga"), Dr. Ing. h.c. F. Porsche AG ("Porsche AG"), and Porsche Cars North America, Inc. (collectively, "VW") for violations of the Act and regulations promulgated thereunder.

JURISDICTION AND VENUE

2. This Court has jurisdiction over the subject matter of and the parties to this action pursuant to Sections 203, 204, and 205 of the Act, 42 U.S.C. §§ 7522, 7523, and 7524, and 28 U.S.C. §§ 1331, 1345, and 1355.

3. This Court has personal jurisdiction over Defendant Volkswagen AG under Mich. Comp. Laws § 600.705 because Volkswagen AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Defendant Volkswagen AG is consistent with due process.

4. Among other things, Defendant Volkswagen AG interacts with Defendant VWoA, its wholly-owned subsidiary, which has an office in Auburn Hills, Michigan and this judicial district, by regularly submitting information to VWoA necessary for VWoA to complete the required applications to obtain certificates of conformity ("COCs") for a significant number of the vehicles Volkswagen AG sells in the United States. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with its wholly-owned subsidiary, Volkswagen AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Volkswagen AG has also attended meetings at, and had other communications with, EPA's Ann Arbor, Michigan Office of Transportation and Air Quality ("OTAQ"), the EPA office in charge of issuing COCs. Further, Volkswagen AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

5. This Court has personal jurisdiction over Defendant VWoA under Mich. Comp. Laws § 600.705 because it transacts business in Michigan. In addition, this Court's exercise of

jurisdiction over VWoA is consistent with due process.

6. Among other things, VWoA has an Engineering and Environmental Office in Auburn Hills, Michigan from which it interacts with EPA OTAQ in connection with obtaining many of the COCs for vehicles sold in the United States, including many of the light duty diesel vehicles addressed in this Complaint. Further, VWoA delivered or arranged for delivery of many of the vehicles addressed in this Complaint, within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

7. This Court has personal jurisdiction over Defendant Audi AG under Mich. Comp. Laws § 600.705 because Audi AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Audi AG is consistent with due process.

8. Among other things, Audi AG has interacted with VWoA's Auburn Hills, Michigan office by regularly submitting information to VWoA's Auburn Hills office necessary for VWoA to complete the required applications to obtain COCs for the vehicles that Audi AG sells in the United States, including the light duty diesel vehicles addressed in this Complaint. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with VWoA, Audi AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Audi AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Audi AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

9. This Court has personal jurisdiction over Defendant Volkswagen Group of America

VW FOIA, EPA 06/20/2017 2017-FFP_036963

Chattanooga Operations, LLC, under Mich. Comp. Laws § 600.705 because VWoA Chattanooga transacts business in Michigan. In addition, this Court's exercise of jurisdiction over VWoA Chattanooga is consistent with due process.

10. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, VWoA is the corporate parent of VWoA Chattanooga; VWoA Chattanooga manufactures certain Passats; VWoA Chattanooga interacts with VWoA, in connection with vehicle manufacturing and other matters; in connection with this and other interactions with its parent company, VWoA Chattanooga has attended meetings at VWoA's Auburn Hills, Michigan office and/or corresponded, telephoned and otherwise communicated with VWoA's Auburn Hills office. Further, VWoA Chattanooga delivered or arranged for delivery of its cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

11. This Court has personal jurisdiction over Defendant Porsche AG under Mich. Comp. Laws § 600.705 because Porsche AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche AG is consistent with due process.

12. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche AG has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche AG has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor,

VW FOIA, EPA 06/20/2017 2017-FFP_036964

Michigan. Further, Porsche AG delivered or arranged for delivery of Porsche cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

13. This Court has personal jurisdiction over Defendant Porsche Cars North America, Inc. under Mich. Comp. Laws § 600.705 because Porsche Cars North America, Inc. transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche Cars North America, Inc. is consistent with due process.

14. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche Cars North America, Inc. has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche Cars North America, Inc. has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche Cars North America, Inc. has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Porsche Cars North America, Inc. delivered or arranged for delivery of Porsche cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

15. Venue is proper in this jurisdiction pursuant to Sections 204 and 205 of the Act, 42 U.S.C. §§ 7523 and 7524, because violations occurred in this judicial district and VWoA has a corporate office within this judicial district.

DEFENDANTS

16. Volkswagen AG is a publicly-held German corporation.

17. Volkswagen AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

18. Volkswagen AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

19. Volkswagen Group of America, Inc. is incorporated under the laws of the State of New Jersey, and is a wholly-owned subsidiary of Volkswagen AG.

20. Volkswagen Group of America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

21. Volkswagen Group of America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

22. Volkswagen Group of America Chattanooga Operations, LLC is incorporated under the laws of the State of Tennessee, and is a wholly-owned subsidiary of VWoA.

23. Volkswagen Group of America Chattanooga Operations, LLC is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

24. Volkswagen Group of America Chattanooga Operations, LLC is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

25. Audi AG is a German corporation, and is approximately 99.55% owned by Volkswagen AG.

26. Audi AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

27. Audi AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

28. Porsche AG is a German corporation, and is wholly-owned by Volkswagen AG.

29. Porsche AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

30. Porsche AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

31. Porsche Cars North America, Inc. is a Delaware corporation, and is a wholly-owned subsidiary of Porsche AG.

32. Porsche Cars North America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

33. Porsche Cars North America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

34. At all times relevant to this action, VW was engaged in the business of manufacturing new motor vehicles, and selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing (or causing the foregoing with respect to) these vehicles in the United States.

STATUTORY AND REGULATORY BACKGROUND

35. This action arises under Title II of the Act, as amended, 42 U.S.C. § 7521 *et seq.*, and the regulations promulgated thereunder, which aim to protect human health and the environment by reducing emissions of nitrogen oxides ("NOx") and other pollutants from mobile sources of air pollution, including new motor vehicles.

36. NOx is a family of highly reactive gases that play a major role in the atmospheric reactions with volatile organic compounds that produce ozone in the atmosphere. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Breathing ozone can also worsen bronchitis, emphysema, and asthma, and can lead to premature death. Children are at greatest risk of experiencing negative health impacts from exposure to ozone. Additionally, recent scientific studies indicate that the direct health effects of NOx are worse than previously understood, including respiratory problems, damage to lung tissue, and premature death.

37. Section 202(a) of the Act, 42 U.S.C. § 7521(a), requires EPA to promulgate emissions standards for new motor vehicles for NOx, and other air pollutants.

38. 40 C.F.R. Part 86 sets emission standards and test procedures for light-duty motor vehicles, including emission standards for NOx. *See* 40 C.F.R. § 86.1811-04.

A. Certificates of Conformity and Prohibition on Uncertified Motor Vehicles

39. Light-duty vehicles must satisfy emission standards for certain air pollutants. 40 C.F.R. §§ 86.1811-04, 86.1811-09, 86.1811-10. EPA administers a certification program to ensure that every new motor vehicle introduced into United States commerce satisfies applicable emission standards. 42 U.S.C. § 7521. Under this program, EPA issues COCs and thereby

VW FOIA, EPA 06/20/2017 2017-FFP_036968

regulates the introduction of new motor vehicles into United States commerce.

40. To obtain a COC, a manufacturer must submit an application to EPA for each model year and for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1843-01. A test group is comprised of vehicles with similar emissions profiles for pollutants regulated under the Act. *See, e.g.,* 40 C.F.R. §§ 86.1803-01, 86.1827-01.

41. Vehicles are covered by a COC only if the vehicles are as described in the manufacturer's application for the COC "in all material respects." 40 C.F.R. § 86.1848-10(c)(6).

42. EPA issues COCs "upon such terms . . . as [the Administrator] may prescribe." 42 U.S.C. § 7525(a)(1); *see also* 40 C.F.R. § 86.1848-01(b) (authorizing EPA to issue COCs on any terms that are necessary and appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

43. Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), prohibits manufacturers of new motor vehicles from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or any person from importing into the United States any new motor vehicle not covered by a COC issued by EPA under regulations prescribed by the Act governing vehicle emission standards. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

B. Prohibition on Defeat Devices and Tampering

44. Each COC application must include, among other things, a list of all auxiliary emission control devices ("AECDs") installed on the vehicles. 40 C.F.R. § 86.1844-01(d)(11).

45. An AECD is "any element of design which senses temperature, vehicle speed, engine [revolutions per minute], transmission gear, manifold vacuum, or any other parameter for

the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.1803-01.

46. An element of design is "any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine." 40 C.F.R. § 86.1803-01.

47. Each COC application must also include "a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device." 40 C.F.R. § 86.1844-01(d)(11).

48. A motor vehicle containing an AECD that can reasonably be expected to affect emission controls and is not disclosed or justified in the COC application does not conform in all material respects with the COC application, and is therefore not covered by the COC.

49. A "defeat device" is an AECD "that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . . . ." 40 C.F.R. § 86.1803-01.

50. Motor vehicles equipped with defeat devices cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86.1809-01, 86.1809-10, 86.1809-12.

51. Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." *See also* 40 C.F.R. § 86.1854-12(a)(3)(ii).

52. Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), prohibits any person from removing or rendering inoperative any device or element of design installed on a motor vehicle in compliance with the regulations promulgated under Title II of the Act prior to its sale and delivery to the ultimate purchaser.

53. It is also a violation to cause any of the acts set forth in Section 203(a)(3). 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

C. Reporting Requirements

54. Section 208(a) of the Act, 42 U.S.C. § 7542(a), requires that "[e]very manufacturer of new motor vehicles . . . establish and maintain records, perform tests . . . make reports, and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting in compliance" with Part A of Title II of the Act.

55. Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), prohibits any person from failing or refusing to make reports or provide information to EPA pursuant to Section 208 of the

Act, 42 U.S.C. § 7542. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

GENERAL ALLEGATIONS

56. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix A to this Complaint ("2.0L Subject Vehicles").

57. Each of the 2.0L Subject Vehicles is equipped with a 2.0 liter diesel engine, and is part of model years 2009-2015.

58. In total, approximately 500,000 2.0L Subject Vehicles were sold in the United States.

59. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for the 2.0L Subject Vehicles.

60. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix B to this Complaint ("3.0L Subject Vehicles").

61. Each of the 3.0L Subject Vehicles is equipped with a 3.0 liter diesel engine, and is part of model years 2009-2016.

62. In total, approximately 80,000 3.0L Subject Vehicles were sold in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_036972

63. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for certain 3.0L Subject Vehicles.

64. Porsche Cars North America, Inc. submitted to EPA, on behalf of itself, and representing Porsche AG, the applications for COCs for certain 3.0L Subject Vehicles.

65. Each COC issued by EPA during the time period relevant to this Complaint states on its face that the certificate covers only those new motor vehicles that conform, in all material respects, to the design specifications provided to EPA in the certificate application for such vehicle.

66. Each application for a COC constitutes a "report [and/or] information the Administrator may reasonably require . . ." to assess compliance with the Act, within the meaning of Section 208(a) of the Act, 42 U.S.C. § 7542(a).

A. The 2.0L Subject Vehicles

67. Each 2.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 2.0L Subject Vehicle.

68. The electronic control module ("ECM") of the 2.0L Subject Vehicles contains software logic and/or calibrations that sense when the vehicle is being tested for compliance with applicable emission standards, based on various inputs including the position of the steering wheel, vehicle speed, the duration of the engine's operation, and barometric pressure. These inputs precisely track the parameters of the federal test procedure ("FTP") and other test cycles used for emission testing required to obtain a COC.

69. During FTP emission testing, the 2.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration that VW has referred to as the "dyno calibration" (referring to the equipment used in emissions testing, called a dynamometer). At all other times during normal vehicle operation, the 2.0L Subject Vehicles' ECM software run a separate "road calibration" that reduces the effectiveness of the emission control system. In other words, the 2.0L Subject Vehicles' ECM software tracks the parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

70. The COC applications for the 2.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 2.0L Subject Vehicles' COC applications.

71. The 2.0L Subject Vehicles therefore are not covered by a COC.

72. This dual-calibration system results in increased NOx emissions by a factor of up to 40 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

73. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

74. VW entities including at least Volkswagen AG, VWoA and Audi AG knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

VW FOIA, EPA 06/20/2017 2017-FFP_036974

75. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

B. The 3.0L Subject Vehicles

76. Each 3.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 3.0L Subject Vehicles.

77. The ECM of the 3.0L Subject Vehicles contains software logic and/or calibrations that cause the vehicle to perform differently when the vehicle is being tested for compliance with applicable emission standards, based on various inputs that appear to track the FTP and/or other test cycles used for emission testing required to obtain a COC, than when the vehicle is in normal operation and use.

78. During FTP emission testing, the 3.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration referred to as the "temperature conditioning mode." At other times during normal vehicle operation, the 3.0L Subject Vehicles' ECM software run a separate "normal mode" that reduces the effectiveness of the emission control system. In other words, the 3.0L Subject Vehicles' ECM software tracks certain parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

79. The COC applications for the 3.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The

VW FOIA, EPA 06/20/2017 2017-FFP_036975

undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 3.0L Subject Vehicles' COC applications.

80. The 3.0L Subject Vehicles therefore are not covered by a COC.

81. This dual-calibration strategy results in increased NOx emissions by a factor of up to 9 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

82. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

83. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG and Porsche Cars North America, Inc. knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

84. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_036976

C. The Investigations and Concealment

85. In or about May 2014, West Virginia University's Center for Alternative Fuels, Engines & Emissions ("WVU") published results of a study commissioned by the International Council on Clean Transportation, and conducted in collaboration with the California Air Resources Board ("CARB"), that found on-road NOx emissions from two 2.0L VW light duty diesel vehicles (2012 Jetta and 2013 Passat) were significantly higher than the applicable emission standards established by EPA regulations.

86. Beginning in or about May 2014 through the present, CARB, in coordination with EPA, has investigated the reasons for the high in-use emissions, repeatedly questioning representatives from VWoA and Volkswagen AG about WVU's findings.

87. In or about October 2014, those VW entities responded that the increased emissions from the vehicles studied by WVU were attributable to various yet-to-be-identified technical issues with the after treatment emission control systems and in-use conditions not represented by the FTP.

88. VW entities including at least VWoA represented to regulators that the vehicles' software could be optimized to address the excess NOx emissions issue and issued a recall in December 2014 and March 2015 for 2.0L vehicles to address the excess emissions issue.

89. From approximately December 2014 through the present, CARB, in coordination with EPA, conducted its own testing to further investigate the reasons behind the high NOx emissions observed on VW's 2.0L light duty diesel vehicles during real world driving conditions, and to investigate the effectiveness of the recall action. This on-road and laboratory testing showed limited reduction in the rates of emission of NOx of the recalled vehicles, and also

VW FOIA, EPA 06/20/2017 2017-FFP_036977

revealed that the vehicles exhibited different behaviors during real world driving conditions than during FTP emission testing.

90. During the course of this investigation, VW entities including at least VWoA and Volkswagen AG suggested a number of potential technical issues and in-use conditions that might explain the higher emission test results, but none of those issues adequately explained why the 2.0L Subject Vehicles behaved differently while operating on the FTP test cycles versus while being driven on the road.

91. In or about September 2015, VW entities including at least VWoA and Volkswagen AG admitted that these 2.0L motor vehicles contained a defeat device in the form of a software algorithm or algorithms that detect when the vehicle is undergoing emission testing.

92. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 2.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least VWoA and Volkswagen AG.

93. VW entities including at least Volkswagen AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 2.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

94. On October 8, 2015, Mr. Michael Horn, VWoA President and Chief Executive Officer, testified before the United States House of Representatives Subcommittee on Oversight and Investigations Committee on Energy and Commerce, and admitted that VWoA and

VW FOIA, EPA 06/20/2017 2017-FFP_036978

Volkswagen AG's representations to EPA and CARB that the increased NOx emissions from the 2.0L Subject Vehicles were due to technical issues were false.

95. During his October 8, 2015 testimony, Mr. Horn further admitted that the installation of the "defeat device" in the 2.0L Subject Vehicles was a knowing and willful decision to deceive.

96. Even after EPA issued its September 18, 2015 Notice of Violation to Volkswagen AG, Audi AG, and VWoA, and Mr. Horn's testimony before Congress, VW failed to come forward and reveal to regulators that the 3.0L Subject Vehicles contain one or more undisclosed AECDs, including the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode." The existence of this dual calibration strategy was uncovered only as a result of EPA and CARB's diligence.

97. On November 2, 2015, EPA issued a Notice of Violation to Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc., citing violations of the Act related to the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode," and the resultant excess emissions in certain 3.0L light duty diesel vehicles.

98. VW entities including at least Volkswagen AG immediately issued a statement denying that software had been installed in 3.0L light duty diesel vehicles to alter emissions in a prohibited manner.

99. On or about November 23, 2015, VW entities including at least Volkswagen AG and Audi AG admitted that the 3.0L Subject Vehicles contain three undisclosed AECDs, one of which – the temperature conditioning mode – is regarded as a defeat device under the Act and implementing regulations.

100. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 3.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least Volkswagen AG and Audi AG.

101. VW entities including at least Audi AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 3.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

FIRST CLAIM FOR RELIEF
(Section 203(a)(1): Sale, Offer for Sale, Introduction or Delivery for Introduction into Commerce, or Import of New Motor Vehicles Not Covered by COCs)

102. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

103. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 500,000 2.0L Subject Vehicles that were not covered by COCs (or caused any of the foregoing) because the 2.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 2.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 2.0L Subject Vehicles' emission controls.

104. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 80,000 3.0L Subject Vehicles that were not covered by COCs (or

VW FOIA, EPA 06/20/2017 2017-FFP_036980

caused any of the foregoing) because the 3.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 3.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 3.0L Subject Vehicles' emission controls.

105. VW violated Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), by selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing new motor vehicles that were not covered by a COC, or by causing any of the foregoing acts.

106. Each such violation of Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), is a separate offense with respect to each new motor vehicle.

107. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW is liable for injunctive relief and civil penalties of up to $32,500 per vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

SECOND CLAIM FOR RELIEF
(Section 203(a)(3)(B): Manufacture, Sale, Offer for Sale, or Installation of Defeat Device)

108. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

109. VW entities including at least Volkswagen AG, VWoA and Audi AG manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended for use with, or as part of, motor vehicles, including the road-calibration AECDs installed on the 2.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 2.0L

Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Volkswagen AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

110. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended or use with, or as part of, motor vehicles, including the normal mode calibration AECDs installed on the 3.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 3.0L Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Audi AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

111. VW entities including at least Volkswagen AG and Audi AG violated Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), by manufacturing, selling, offering for sale, or installing "defeat devices" on new motor vehicles, or by causing any of the foregoing acts.

112. Each part or component that constitutes a "defeat device" manufactured, sold, offered for sale, or installed on new motor vehicles (or the causing thereof) is a separate violation of Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B).

113. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG and Audi AG are liable for injunctive relief and civil penalties of up to $2,750 per part or component that constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $3,750 per part or component that

VW FOIA, EPA 06/20/2017 2017-FFP_036982

constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

THIRD CLAIM FOR RELIEF
(Section 203(a)(3)(A): Tampering)

114. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

115. The road-calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

116. The normal mode calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

117. VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the road-calibration AECDs in the 2.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

118. VW entities including at least Volkswagen AG, Audi AG and Porsche AG violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the normal mode calibration AECDs in the 3.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

VW FOIA, EPA 06/20/2017 2017-FFP_036983

119. Each 2.0L Subject Vehicle equipped with the road-calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

120. Each 3.0L Subject Vehicle equipped with the normal mode calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and Porsche AG of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

121. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG and Porsche AG are liable for injunctive relief and civil penalties of up to $32,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

FOURTH CLAIM FOR RELIEF
(Section 203(a)(2): Reporting Violations)

122. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

123. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to disclose the existence of the road-calibration and/or other AECDs in the COC applications for the 2.0L Subject Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

124. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to disclose the existence of the normal mode calibration and/or other AECDs in the COC applications for the 3.0L Subject

VW FOIA, EPA 06/20/2017 2017-FFP_036984

Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

125. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to provide a justification for the road-calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the road-calibration and/or other AECDs are not a defeat device, in the COC applications for the 2.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

126. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to provide a justification for the normal mode calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the normal mode calibration and/or other AECDs are not a defeat device, in the COC applications for the 3.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

127. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to disclose one or more AECDs in a COC application for a test group of new motor vehicles.

128. VW entities including at least Volkswagen AG, Audi AG and VWoA violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 2.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

129. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 3.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

130. Each failure to provide reports or information described above is a separate violation of Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2).

131. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. are liable for injunctive relief and civil penalties of up to $32,500 per day of violation of Section 203(a)(2) occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per day of violation for such violations occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff, the United States of America, respectfully requests that the Court provide the following relief:

a. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle not covered by a COC issued by EPA in accordance with the Act and the regulations promulgated thereunder.

b. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the

foregoing acts) any new motor vehicle equipped with an AECD, except in compliance with the Act and the regulations promulgated thereunder.

c. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle equipped with a defeat device.

d. Permanently enjoin VW from bypassing, defeating, or rendering inoperative any device or element of design installed on or in a new motor vehicle in compliance with regulations promulgated under Title II of the Act.

e. Order VW to take appropriate steps, including, but not limited to, mitigation of excess NOx emissions, to remedy the violations of Sections 203(a)(1), 203(a)(3)(A), and 203(a)(3)(B) alleged above.

f. Enter a judgment that VW is liable to the United States for civil penalties for each violation of Section 203(a) of the Act, and assess civil penalties against VW as follows:

i. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(1) of the Act;

ii. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(A) of the Act;

iii. up to $2,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $3,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(B) of the Act; and

iv. up to $32,500 per day of violation occurring before January 13, 2009, and up to $37,500 per day of violation occurring on or after January 13, 2009 for violations of Section 203(a)(2) of the Act.

g. Award the United States its costs in this action; and

h. Grant such other and further relief as the Court deems just and proper.

VW FOIA, EPA 06/20/2017 2017-FFP_036988

Respectfully submitted,

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VW FOIA, EPA 06/20/2017 2017-FFP_036989

United States v. Volkswagen AG, et al.

APPENDIX A TO COMPLAINT

Identification of the 2.0L Subject Vehicles

Model Year	EPA Test Group	Vehicle Make and Model(s)
2009	9VWXV02.035N	VW Jetta, VW Jetta Sportwagen
2009	9VWXV02.0U5N	VW Jetta, VW Jetta Sportwagen
2010	AVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2011	BVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U4S	VW Passat
2013	DVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2013	DVWXV02.0U4S	VW Passat
2014	EVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2014	EVWXV02.0U4S	VW Passat
2015	FVGAV02.0VAL	VW Beetle, VW Beetle Convertible, VW Golf, VW Golf Sportwagen, VW Jetta, VW Passat, Audi A3

United States v. Volkswagen AG, et al.

APPENDIX B TO COMPLAINT

Identification of the 3.0L Subject Vehicles

Model Year	EPA Test Group(s)	Vehicle Make and Model(s)
2009	9ADXT03.03LD	VW Touareg, Audi Q7
2010	AADXT03.03LD	VW Touareg, Audi Q7
2011	BADXT03.02UG BADXT03.03UG	VW Touareg Audi Q7
2012	CADXT03.02UG CADXT03.03UG	VW Touareg Audi Q7
2013	DADXT03.02UG DADXT03.03UG DPRXT03.0CDD	VW Touareg Audi Q7 Cayenne Diesel
2014	EADXT03.02UG EADXT03.03UG EPRXT03.0CDD EADXJ03.04UG	VW Touareg Audi Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2015	FVGAT03.0NU2 FVGAT03.0NU3 FPRXT03.0CDD FVGAJ03.0NU4	VW Touareg Audi: Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2016	GVGAT03.0NU2 GPRXT03.0CDD GVGAJ03.0NU4	VW Touareg Cayenne Diesel A6 quattro, A7 quattro,A8, A8L, Q5

U.S. District Court
Eastern District of Michigan (Detroit)
CIVIL DOCKET FOR CASE #: 2:16-cv-10006-LJM-MJH

United States of America v. Volkswagen AG et al
Assigned to: District Judge Laurie J. Michelson
Referred to: Magistrate Judge Michael J. Hluchaniuk
Cause: Civil Miscellaneous Case

Date Filed: 01/04/2016
Jury Demand: None
Nature of Suit: 893 Environmental Matters
Jurisdiction: U.S. Government Plaintiff

Plaintiff

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ATTORNEY TO BE NOTICED

V.

Defendant

Volkswagen AG

Defendant

Audi AG

Defendant

Volkswagen Group of America, Inc.

Defendant

Volkswagen Group of America Chattanooga Operations LLC

Defendant

Porsche AG

Defendant

Porsche Cars North America, Inc.

Date Filed	#	Docket Text

VW FOIA, EPA 06/20/2017 2017-FFP_036992

01/04/2016	1	COMPLAINT filed by United States of America against All Defendants. Plaintiff requests summons issued. No Fee Required - US Government. County of 1st Plaintiff: USA - County Where Action Arose: USA - County of 1st Defendant: Out of Country. [Previously dismissed case: No] [Possible companion case(s): United States District Court for the Northern District of California, 3:15-md-02672, Judge Honorable Charles R. Breyer] (Engel, Bethany) (Entered: 01/04/2016)

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Description:	Docket Report	Search Criteria:	2:16-cv-10006-LJM-MJH
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VW FOIA, EPA 06/20/2017 2017-FFP_036993

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc., Defendants.	Civil Action No.

COMPLAINT

The United States of America, by authority of the Attorney General of the United States and at the request of the Administrator of the United States Environmental Protection Agency ("EPA"), files this complaint and alleges as follows:

NATURE OF ACTION

1. This is a civil action brought pursuant to Sections 204 and 205 of the Clean Air Act ("Act"), 42 U.S.C. §§ 7523 and 7524, for injunctive relief and the assessment of civil penalties against Volkswagen AG, Audi AG, Volkswagen Group of America, Inc. ("VWoA"), Volkswagen Group of America Chattanooga Operations, LLC ("VWoA Chattanooga"), Dr. Ing. h.c. F. Porsche AG ("Porsche AG"), and Porsche Cars North America, Inc. (collectively, "VW") for violations of the Act and regulations promulgated thereunder.

JURISDICTION AND VENUE

2. This Court has jurisdiction over the subject matter of and the parties to this action pursuant to Sections 203, 204, and 205 of the Act, 42 U.S.C. §§ 7522, 7523, and 7524, and 28 U.S.C. §§ 1331, 1345, and 1355.

3. This Court has personal jurisdiction over Defendant Volkswagen AG under Mich. Comp. Laws § 600.705 because Volkswagen AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Defendant Volkswagen AG is consistent with due process.

4. Among other things, Defendant Volkswagen AG interacts with Defendant VWoA, its wholly-owned subsidiary, which has an office in Auburn Hills, Michigan and this judicial district, by regularly submitting information to VWoA necessary for VWoA to complete the required applications to obtain certificates of conformity ("COCs") for a significant number of the vehicles Volkswagen AG sells in the United States. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with its wholly-owned subsidiary, Volkswagen AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Volkswagen AG has also attended meetings at, and had other communications with, EPA's Ann Arbor, Michigan Office of Transportation and Air Quality ("OTAQ"), the EPA office in charge of issuing COCs. Further, Volkswagen AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

5. This Court has personal jurisdiction over Defendant VWoA under Mich. Comp. Laws § 600.705 because it transacts business in Michigan. In addition, this Court's exercise of

VW FOIA, EPA 06/20/2017 2017-FFP_036995

jurisdiction over VWoA is consistent with due process.

6. Among other things, VWoA has an Engineering and Environmental Office in Auburn Hills, Michigan from which it interacts with EPA OTAQ in connection with obtaining many of the COCs for vehicles sold in the United States, including many of the light duty diesel vehicles addressed in this Complaint. Further, VWoA delivered or arranged for delivery of many of the vehicles addressed in this Complaint, within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

7. This Court has personal jurisdiction over Defendant Audi AG under Mich. Comp. Laws § 600.705 because Audi AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Audi AG is consistent with due process.

8. Among other things, Audi AG has interacted with VWoA's Auburn Hills, Michigan office by regularly submitting information to VWoA's Auburn Hills office necessary for VWoA to complete the required applications to obtain COCs for the vehicles that Audi AG sells in the United States, including the light duty diesel vehicles addressed in this Complaint. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with VWoA, Audi AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Audi AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Audi AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

9. This Court has personal jurisdiction over Defendant Volkswagen Group of America

VW FOIA, EPA 06/20/2017 2017-FFP_036996

Chattanooga Operations, LLC, under Mich. Comp. Laws § 600.705 because VWoA Chattanooga transacts business in Michigan. In addition, this Court's exercise of jurisdiction over VWoA Chattanooga is consistent with due process.

10. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, VWoA is the corporate parent of VWoA Chattanooga; VWoA Chattanooga manufactures certain Passats; VWoA Chattanooga interacts with VWoA, in connection with vehicle manufacturing and other matters; in connection with this and other interactions with its parent company, VWoA Chattanooga has attended meetings at VWoA's Auburn Hills, Michigan office and/or corresponded, telephoned and otherwise communicated with VWoA's Auburn Hills office. Further, VWoA Chattanooga delivered or arranged for delivery of its cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

11. This Court has personal jurisdiction over Defendant Porsche AG under Mich. Comp. Laws § 600.705 because Porsche AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche AG is consistent with due process.

12. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche AG has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche AG has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor,

VW FOIA, EPA 06/20/2017 2017-FFP_036997

Michigan. Further, Porsche AG delivered or arranged for delivery of Porsche cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

13. This Court has personal jurisdiction over Defendant Porsche Cars North America, Inc. under Mich. Comp. Laws § 600.705 because Porsche Cars North America, Inc. transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche Cars North America, Inc. is consistent with due process.

14. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche Cars North America, Inc. has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche Cars North America, Inc. has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche Cars North America, Inc. has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Porsche Cars North America, Inc. delivered or arranged for delivery of Porsche cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

15. Venue is proper in this jurisdiction pursuant to Sections 204 and 205 of the Act, 42 U.S.C. §§ 7523 and 7524, because violations occurred in this judicial district and VWoA has a corporate office within this judicial district.

VW FOIA, EPA 06/20/2017 2017-FFP_036998

DEFENDANTS

16. Volkswagen AG is a publicly-held German corporation.

17. Volkswagen AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

18. Volkswagen AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

19. Volkswagen Group of America, Inc. is incorporated under the laws of the State of New Jersey, and is a wholly-owned subsidiary of Volkswagen AG.

20. Volkswagen Group of America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

21. Volkswagen Group of America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

22. Volkswagen Group of America Chattanooga Operations, LLC is incorporated under the laws of the State of Tennessee, and is a wholly-owned subsidiary of VWoA.

23. Volkswagen Group of America Chattanooga Operations, LLC is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

24. Volkswagen Group of America Chattanooga Operations, LLC is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

25. Audi AG is a German corporation, and is approximately 99.55% owned by Volkswagen AG.

26. Audi AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

VW FOIA, EPA 06/20/2017 2017-FFP_036999

27. Audi AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

28. Porsche AG is a German corporation, and is wholly-owned by Volkswagen AG.

29. Porsche AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

30. Porsche AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

31. Porsche Cars North America, Inc. is a Delaware corporation, and is a wholly-owned subsidiary of Porsche AG.

32. Porsche Cars North America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

33. Porsche Cars North America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

34. At all times relevant to this action, VW was engaged in the business of manufacturing new motor vehicles, and selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing (or causing the foregoing with respect to) these vehicles in the United States.

STATUTORY AND REGULATORY BACKGROUND

35. This action arises under Title II of the Act, as amended, 42 U.S.C. § 7521 *et seq.*, and the regulations promulgated thereunder, which aim to protect human health and the environment by reducing emissions of nitrogen oxides ("NOx") and other pollutants from mobile sources of air pollution, including new motor vehicles.

36. NOx is a family of highly reactive gases that play a major role in the atmospheric reactions with volatile organic compounds that produce ozone in the atmosphere. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Breathing ozone can also worsen bronchitis, emphysema, and asthma, and can lead to premature death. Children are at greatest risk of experiencing negative health impacts from exposure to ozone. Additionally, recent scientific studies indicate that the direct health effects of NOx are worse than previously understood, including respiratory problems, damage to lung tissue, and premature death.

37. Section 202(a) of the Act, 42 U.S.C. § 7521(a), requires EPA to promulgate emissions standards for new motor vehicles for NOx, and other air pollutants.

38. 40 C.F.R. Part 86 sets emission standards and test procedures for light-duty motor vehicles, including emission standards for NOx. *See* 40 C.F.R. § 86.1811-04.

A. Certificates of Conformity and Prohibition on Uncertified Motor Vehicles

39. Light-duty vehicles must satisfy emission standards for certain air pollutants. 40 C.F.R. §§ 86.1811-04, 86.1811-09, 86.1811-10. EPA administers a certification program to ensure that every new motor vehicle introduced into United States commerce satisfies applicable emission standards. 42 U.S.C. § 7521. Under this program, EPA issues COCs and thereby

VW FOIA, EPA 06/20/2017 2017-FFP_037001

regulates the introduction of new motor vehicles into United States commerce.

40. To obtain a COC, a manufacturer must submit an application to EPA for each model year and for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1843-01. A test group is comprised of vehicles with similar emissions profiles for pollutants regulated under the Act. *See, e.g.,* 40 C.F.R. §§ 86.1803-01, 86.1827-01.

41. Vehicles are covered by a COC only if the vehicles are as described in the manufacturer's application for the COC "in all material respects." 40 C.F.R. § 86.1848-10(c)(6).

42. EPA issues COCs "upon such terms . . . as [the Administrator] may prescribe." 42 U.S.C. § 7525(a)(1); *see also* 40 C.F.R. § 86.1848-01(b) (authorizing EPA to issue COCs on any terms that are necessary and appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

43. Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), prohibits manufacturers of new motor vehicles from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or any person from importing into the United States any new motor vehicle not covered by a COC issued by EPA under regulations prescribed by the Act governing vehicle emission standards. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

B. Prohibition on Defeat Devices and Tampering

44. Each COC application must include, among other things, a list of all auxiliary emission control devices ("AECDs") installed on the vehicles. 40 C.F.R. § 86.1844-01(d)(11).

45. An AECD is "any element of design which senses temperature, vehicle speed, engine [revolutions per minute], transmission gear, manifold vacuum, or any other parameter for

VW FOIA, EPA 06/20/2017 2017-FFP_037002

the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.1803-01.

46. An element of design is "any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine." 40 C.F.R. § 86.1803-01.

47. Each COC application must also include "a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device." 40 C.F.R. § 86.1844-01(d)(11).

48. A motor vehicle containing an AECD that can reasonably be expected to affect emission controls and is not disclosed or justified in the COC application does not conform in all material respects with the COC application, and is therefore not covered by the COC.

49. A "defeat device" is an AECD "that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . . . ." 40 C.F.R. § 86.1803-01.

50. Motor vehicles equipped with defeat devices cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86.1809-01, 86.1809-10, 86.1809-12.

VW FOIA, EPA 06/20/2017 2017-FFP_037003

51. Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." *See also* 40 C.F.R. § 86.1854-12(a)(3)(ii).

52. Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), prohibits any person from removing or rendering inoperative any device or element of design installed on a motor vehicle in compliance with the regulations promulgated under Title II of the Act prior to its sale and delivery to the ultimate purchaser.

53. It is also a violation to cause any of the acts set forth in Section 203(a)(3). 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

C. Reporting Requirements

54. Section 208(a) of the Act, 42 U.S.C. § 7542(a), requires that "[e]very manufacturer of new motor vehicles . . . establish and maintain records, perform tests . . . make reports, and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting in compliance" with Part A of Title II of the Act.

55. Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), prohibits any person from failing or refusing to make reports or provide information to EPA pursuant to Section 208 of the

VW FOIA, EPA 06/20/2017 2017-FFP_037004

Act, 42 U.S.C. § 7542. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

GENERAL ALLEGATIONS

56. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix A to this Complaint ("2.0L Subject Vehicles").

57. Each of the 2.0L Subject Vehicles is equipped with a 2.0 liter diesel engine, and is part of model years 2009-2015.

58. In total, approximately 500,000 2.0L Subject Vehicles were sold in the United States.

59. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for the 2.0L Subject Vehicles.

60. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix B to this Complaint ("3.0L Subject Vehicles").

61. Each of the 3.0L Subject Vehicles is equipped with a 3.0 liter diesel engine, and is part of model years 2009-2016.

62. In total, approximately 80,000 3.0L Subject Vehicles were sold in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_037005

63. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for certain 3.0L Subject Vehicles.

64. Porsche Cars North America, Inc. submitted to EPA, on behalf of itself, and representing Porsche AG, the applications for COCs for certain 3.0L Subject Vehicles.

65. Each COC issued by EPA during the time period relevant to this Complaint states on its face that the certificate covers only those new motor vehicles that conform, in all material respects, to the design specifications provided to EPA in the certificate application for such vehicle.

66. Each application for a COC constitutes a "report [and/or] information the Administrator may reasonably require . . ." to assess compliance with the Act, within the meaning of Section 208(a) of the Act, 42 U.S.C. § 7542(a).

A. The 2.0L Subject Vehicles

67. Each 2.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 2.0L Subject Vehicle.

68. The electronic control module ("ECM") of the 2.0L Subject Vehicles contains software logic and/or calibrations that sense when the vehicle is being tested for compliance with applicable emission standards, based on various inputs including the position of the steering wheel, vehicle speed, the duration of the engine's operation, and barometric pressure. These inputs precisely track the parameters of the federal test procedure ("FTP") and other test cycles used for emission testing required to obtain a COC.

VW FOIA, EPA 06/20/2017 2017-FFP_037006

69. During FTP emission testing, the 2.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration that VW has referred to as the "dyno calibration" (referring to the equipment used in emissions testing, called a dynamometer). At all other times during normal vehicle operation, the 2.0L Subject Vehicles' ECM software run a separate "road calibration" that reduces the effectiveness of the emission control system. In other words, the 2.0L Subject Vehicles' ECM software tracks the parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

70. The COC applications for the 2.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 2.0L Subject Vehicles' COC applications.

71. The 2.0L Subject Vehicles therefore are not covered by a COC.

72. This dual-calibration system results in increased NOx emissions by a factor of up to 40 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

73. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

74. VW entities including at least Volkswagen AG, VWoA and Audi AG knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

VW FOIA, EPA 06/20/2017 2017-FFP_037007

75. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

B. The 3.0L Subject Vehicles

76. Each 3.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 3.0L Subject Vehicles.

77. The ECM of the 3.0L Subject Vehicles contains software logic and/or calibrations that cause the vehicle to perform differently when the vehicle is being tested for compliance with applicable emission standards, based on various inputs that appear to track the FTP and/or other test cycles used for emission testing required to obtain a COC, than when the vehicle is in normal operation and use.

78. During FTP emission testing, the 3.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration referred to as the "temperature conditioning mode." At other times during normal vehicle operation, the 3.0L Subject Vehicles' ECM software run a separate "normal mode" that reduces the effectiveness of the emission control system. In other words, the 3.0L Subject Vehicles' ECM software tracks certain parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

79. The COC applications for the 3.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The

VW FOIA, EPA 06/20/2017 2017-FFP_037008

undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 3.0L Subject Vehicles' COC applications.

80. The 3.0L Subject Vehicles therefore are not covered by a COC.

81. This dual-calibration strategy results in increased NOx emissions by a factor of up to 9 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

82. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

83. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG and Porsche Cars North America, Inc. knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

84. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_037009

C. The Investigations and Concealment

85. In or about May 2014, West Virginia University's Center for Alternative Fuels, Engines & Emissions ("WVU") published results of a study commissioned by the International Council on Clean Transportation, and conducted in collaboration with the California Air Resources Board ("CARB"), that found on-road NOx emissions from two 2.0L VW light duty diesel vehicles (2012 Jetta and 2013 Passat) were significantly higher than the applicable emission standards established by EPA regulations.

86. Beginning in or about May 2014 through the present, CARB, in coordination with EPA, has investigated the reasons for the high in-use emissions, repeatedly questioning representatives from VWoA and Volkswagen AG about WVU's findings.

87. In or about October 2014, those VW entities responded that the increased emissions from the vehicles studied by WVU were attributable to various yet-to-be-identified technical issues with the after treatment emission control systems and in-use conditions not represented by the FTP.

88. VW entities including at least VWoA represented to regulators that the vehicles' software could be optimized to address the excess NOx emissions issue and issued a recall in December 2014 and March 2015 for 2.0L vehicles to address the excess emissions issue.

89. From approximately December 2014 through the present, CARB, in coordination with EPA, conducted its own testing to further investigate the reasons behind the high NOx emissions observed on VW's 2.0L light duty diesel vehicles during real world driving conditions, and to investigate the effectiveness of the recall action. This on-road and laboratory testing showed limited reduction in the rates of emission of NOx of the recalled vehicles, and also

VW FOIA, EPA 06/20/2017 2017-FFP_037010

revealed that the vehicles exhibited different behaviors during real world driving conditions than during FTP emission testing.

90. During the course of this investigation, VW entities including at least VWoA and Volkswagen AG suggested a number of potential technical issues and in-use conditions that might explain the higher emission test results, but none of those issues adequately explained why the 2.0L Subject Vehicles behaved differently while operating on the FTP test cycles versus while being driven on the road.

91. In or about September 2015, VW entities including at least VWoA and Volkswagen AG admitted that these 2.0L motor vehicles contained a defeat device in the form of a software algorithm or algorithms that detect when the vehicle is undergoing emission testing.

92. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 2.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least VWoA and Volkswagen AG.

93. VW entities including at least Volkswagen AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 2.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

94. On October 8, 2015, Mr. Michael Horn, VWoA President and Chief Executive Officer, testified before the United States House of Representatives Subcommittee on Oversight and Investigations Committee on Energy and Commerce, and admitted that VWoA and

VW FOIA, EPA 06/20/2017 2017-FFP_037011

Volkswagen AG's representations to EPA and CARB that the increased NOx emissions from the 2.0L Subject Vehicles were due to technical issues were false.

95. During his October 8, 2015 testimony, Mr. Horn further admitted that the installation of the "defeat device" in the 2.0L Subject Vehicles was a knowing and willful decision to deceive.

96. Even after EPA issued its September 18, 2015 Notice of Violation to Volkswagen AG, Audi AG, and VWoA, and Mr. Horn's testimony before Congress, VW failed to come forward and reveal to regulators that the 3.0L Subject Vehicles contain one or more undisclosed AECDs, including the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode." The existence of this dual calibration strategy was uncovered only as a result of EPA and CARB's diligence.

97. On November 2, 2015, EPA issued a Notice of Violation to Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc., citing violations of the Act related to the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode," and the resultant excess emissions in certain 3.0L light duty diesel vehicles.

98. VW entities including at least Volkswagen AG immediately issued a statement denying that software had been installed in 3.0L light duty diesel vehicles to alter emissions in a prohibited manner.

99. On or about November 23, 2015, VW entities including at least Volkswagen AG and Audi AG admitted that the 3.0L Subject Vehicles contain three undisclosed AECDs, one of which – the temperature conditioning mode – is regarded as a defeat device under the Act and implementing regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_037012

100. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 3.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least Volkswagen AG and Audi AG.

101. VW entities including at least Audi AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 3.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

FIRST CLAIM FOR RELIEF
(Section 203(a)(1): Sale, Offer for Sale, Introduction or Delivery for Introduction into Commerce, or Import of New Motor Vehicles Not Covered by COCs)

102. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

103. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 500,000 2.0L Subject Vehicles that were not covered by COCs (or caused any of the foregoing) because the 2.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 2.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 2.0L Subject Vehicles' emission controls.

104. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 80,000 3.0L Subject Vehicles that were not covered by COCs (or

VW FOIA, EPA 06/20/2017 2017-FFP_037013

caused any of the foregoing) because the 3.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 3.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 3.0L Subject Vehicles' emission controls.

105. VW violated Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), by selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing new motor vehicles that were not covered by a COC, or by causing any of the foregoing acts.

106. Each such violation of Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), is a separate offense with respect to each new motor vehicle.

107. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW is liable for injunctive relief and civil penalties of up to $32,500 per vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

SECOND CLAIM FOR RELIEF
(Section 203(a)(3)(B): Manufacture, Sale, Offer for Sale, or Installation of Defeat Device)

108. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

109. VW entities including at least Volkswagen AG, VWoA and Audi AG manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended for use with, or as part of, motor vehicles, including the road-calibration AECDs installed on the 2.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 2.0L

VW FOIA, EPA 06/20/2017 2017-FFP_037014

Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Volkswagen AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

110. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended or use with, or as part of, motor vehicles, including the normal mode calibration AECDs installed on the 3.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 3.0L Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Audi AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

111. VW entities including at least Volkswagen AG and Audi AG violated Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), by manufacturing, selling, offering for sale, or installing "defeat devices" on new motor vehicles, or by causing any of the foregoing acts.

112. Each part or component that constitutes a "defeat device" manufactured, sold, offered for sale, or installed on new motor vehicles (or the causing thereof) is a separate violation of Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B).

113. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG and Audi AG are liable for injunctive relief and civil penalties of up to $2,750 per part or component that constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $3,750 per part or component that

VW FOIA, EPA 06/20/2017 2017-FFP_037015

constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

THIRD CLAIM FOR RELIEF
(Section 203(a)(3)(A): Tampering)

114. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

115. The road-calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

116. The normal mode calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

117. VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the road-calibration AECDs in the 2.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

118. VW entities including at least Volkswagen AG, Audi AG and Porsche AG violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the normal mode calibration AECDs in the 3.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

VW FOIA, EPA 06/20/2017 2017-FFP_037016

119. Each 2.0L Subject Vehicle equipped with the road-calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

120. Each 3.0L Subject Vehicle equipped with the normal mode calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and Porsche AG of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

121. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG and Porsche AG are liable for injunctive relief and civil penalties of up to $32,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

FOURTH CLAIM FOR RELIEF
(Section 203(a)(2): Reporting Violations)

122. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

123. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to disclose the existence of the road-calibration and/or other AECDs in the COC applications for the 2.0L Subject Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

124. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to disclose the existence of the normal mode calibration and/or other AECDs in the COC applications for the 3.0L Subject

VW FOIA, EPA 06/20/2017 2017-FFP_037017

Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

125. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to provide a justification for the road-calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the road-calibration and/or other AECDs are not a defeat device, in the COC applications for the 2.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

126. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to provide a justification for the normal mode calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the normal mode calibration and/or other AECDs are not a defeat device, in the COC applications for the 3.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

127. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to disclose one or more AECDs in a COC application for a test group of new motor vehicles.

128. VW entities including at least Volkswagen AG, Audi AG and VWoA violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 2.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

VW FOIA, EPA 06/20/2017 2017-FFP_037018

129. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 3.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

130. Each failure to provide reports or information described above is a separate violation of Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2).

131. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. are liable for injunctive relief and civil penalties of up to $32,500 per day of violation of Section 203(a)(2) occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per day of violation for such violations occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff, the United States of America, respectfully requests that the Court provide the following relief:

a. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle not covered by a COC issued by EPA in accordance with the Act and the regulations promulgated thereunder.

b. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the

VW FOIA, EPA 06/20/2017 2017-FFP_037019

foregoing acts) any new motor vehicle equipped with an AECD, except in compliance with the Act and the regulations promulgated thereunder.

c. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle equipped with a defeat device.

d. Permanently enjoin VW from bypassing, defeating, or rendering inoperative any device or element of design installed on or in a new motor vehicle in compliance with regulations promulgated under Title II of the Act.

e. Order VW to take appropriate steps, including, but not limited to, mitigation of excess NOx emissions, to remedy the violations of Sections 203(a)(1), 203(a)(3)(A), and 203(a)(3)(B) alleged above.

f. Enter a judgment that VW is liable to the United States for civil penalties for each violation of Section 203(a) of the Act, and assess civil penalties against VW as follows:

i. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(1) of the Act;

ii. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(A) of the Act;

VW FOIA, EPA 06/20/2017 2017-FFP_037020

iii. up to $2,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $3,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(B) of the Act; and

iv. up to $32,500 per day of violation occurring before January 13, 2009, and up to $37,500 per day of violation occurring on or after January 13, 2009 for violations of Section 203(a)(2) of the Act.

g. Award the United States its costs in this action; and

h. Grant such other and further relief as the Court deems just and proper.

VW FOIA, EPA 06/20/2017 2017-FFP_037021

Respectfully submitted,

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VW FOIA, EPA 06/20/2017 2017-FFP_037022

United States v. Volkswagen AG, et al.

APPENDIX A TO COMPLAINT

Identification of the 2.0L Subject Vehicles

Model Year	EPA Test Group	Vehicle Make and Model(s)
2009	9VWXV02.035N	VW Jetta, VW Jetta Sportwagen
2009	9VWXV02.0U5N	VW Jetta, VW Jetta Sportwagen
2010	AVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2011	BVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U4S	VW Passat
2013	DVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2013	DVWXV02.0U4S	VW Passat
2014	EVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2014	EVWXV02.0U4S	VW Passat
2015	FVGAV02.0VAL	VW Beetle, VW Beetle Convertible, VW Golf, VW Golf Sportwagen, VW Jetta, VW Passat, Audi A3

United States v. Volkswagen AG, et al.

APPENDIX B TO COMPLAINT

Identification of the 3.0L Subject Vehicles

Model Year	EPA Test Group(s)	Vehicle Make and Model(s)
2009	9ADXT03.03LD	VW Touareg, Audi Q7
2010	AADXT03.03LD	VW Touareg, Audi Q7
2011	BADXT03.02UG BADXT03.03UG	VW Touareg Audi Q7
2012	CADXT03.02UG CADXT03.03UG	VW Touareg Audi Q7
2013	DADXT03.02UG DADXT03.03UG DPRXT03.0CDD	VW Touareg Audi Q7 Cayenne Diesel
2014	EADXT03.02UG EADXT03.03UG EPRXT03.0CDD EADXJ03.04UG	VW Touareg Audi Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2015	FVGAT03.0NU2 FVGAT03.0NU3 FPRXT03.0CDD FVGAJ03.0NU4	VW Touareg Audi: Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2016	GVGAT03.0NU2 GPRXT03.0CDD GVGAJ03.0NU4	VW Touareg Cayenne Diesel A6 quattro, A7 quattro,A8, A8L, Q5

BEFORE THE UNITED STATES JUDICIAL PANEL ON MULTIDISTRICT LITIGATION

In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation	)	**MDL NO. 2672**

NOTICE OF POTENTIAL TAG-ALONG ACTION

The United States of America hereby notifies the Clerk of the United States Judicial Panel on Multidistrict Litigation of the following potential tag-along action.

Case Name	Case No.	Court	Judge
United States of America v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc.	2:16-cv-10006	United States District Court for the Eastern District of Michigan	District Judge Laurie J. Michelson

A copy of the United States' complaint and corresponding docket sheet are attached hereto as Exhibit 1. As the United States' complaint involves common factual questions with those actions transferred to the Honorable Charles R. Breyer of the United States District Court for the Northern District of California, the United States requests inclusion of this action in the multi-district litigation for coordinated pretrial proceedings.

VW FOIA, EPA 06/20/2017 2017-FFP_037025

Respectfully submitted,

For the United States of America

Dated: January 4, 2016

JOHN C. CRUDEN
Assistant Attorney General
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VW FOIA, EPA 06/20/2017 2017-FFP_037026

BEFORE THE UNITED STATES JUDICIAL PANEL ON MULTIDISTRICT LITIGATION

In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation	)	**MDL NO. 2672**

SCHEDULE OF ACTIONS

Case Name	Case No.	Court	Judge
United States of America v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc.	2:16-cv-10006	United States District Court for the Eastern District of Michigan	District Judge Laurie J. Michelson

VW FOIA, EPA 06/20/2017 2017-FFP_037027

BEFORE THE UNITED STATES JUDICIAL PANEL ON MULTIDISTRICT LITIGATION

In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation	)	**MDL NO. 2672**

PROOF OF SERVICE

I hereby certify that an electronic copy of the foregoing Notice of Potential Tag-Along Action, and attached Schedule of Actions and Proof of Service, were filed in MDL No. 2672 on January 4, 2016, and were served by the Panel's CM/ECF service on all counsel of record and interested parties.

Respectfully submitted,

Dated: January 4, 2016

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VW FOIA, EPA 06/20/2017 2017-FFP_037028

EXHIBIT 1

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc., Defendants.	Civil Action No.

COMPLAINT

The United States of America, by authority of the Attorney General of the United States and at the request of the Administrator of the United States Environmental Protection Agency ("EPA"), files this complaint and alleges as follows:

NATURE OF ACTION

1. This is a civil action brought pursuant to Sections 204 and 205 of the Clean Air Act ("Act"), 42 U.S.C. §§ 7523 and 7524, for injunctive relief and the assessment of civil penalties against Volkswagen AG, Audi AG, Volkswagen Group of America, Inc. ("VWoA"), Volkswagen Group of America Chattanooga Operations, LLC ("VWoA Chattanooga"), Dr. Ing. h.c. F. Porsche AG ("Porsche AG"), and Porsche Cars North America, Inc. (collectively, "VW") for violations of the Act and regulations promulgated thereunder.

JURISDICTION AND VENUE

2. This Court has jurisdiction over the subject matter of and the parties to this action pursuant to Sections 203, 204, and 205 of the Act, 42 U.S.C. §§ 7522, 7523, and 7524, and 28 U.S.C. §§ 1331, 1345, and 1355.

3. This Court has personal jurisdiction over Defendant Volkswagen AG under Mich. Comp. Laws § 600.705 because Volkswagen AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Defendant Volkswagen AG is consistent with due process.

4. Among other things, Defendant Volkswagen AG interacts with Defendant VWoA, its wholly-owned subsidiary, which has an office in Auburn Hills, Michigan and this judicial district, by regularly submitting information to VWoA necessary for VWoA to complete the required applications to obtain certificates of conformity ("COCs") for a significant number of the vehicles Volkswagen AG sells in the United States. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with its wholly-owned subsidiary, Volkswagen AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Volkswagen AG has also attended meetings at, and had other communications with, EPA's Ann Arbor, Michigan Office of Transportation and Air Quality ("OTAQ"), the EPA office in charge of issuing COCs. Further, Volkswagen AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

5. This Court has personal jurisdiction over Defendant VWoA under Mich. Comp. Laws § 600.705 because it transacts business in Michigan. In addition, this Court's exercise of

jurisdiction over VWoA is consistent with due process.

6. Among other things, VWoA has an Engineering and Environmental Office in Auburn Hills, Michigan from which it interacts with EPA OTAQ in connection with obtaining many of the COCs for vehicles sold in the United States, including many of the light duty diesel vehicles addressed in this Complaint. Further, VWoA delivered or arranged for delivery of many of the vehicles addressed in this Complaint, within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

7. This Court has personal jurisdiction over Defendant Audi AG under Mich. Comp. Laws § 600.705 because Audi AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Audi AG is consistent with due process.

8. Among other things, Audi AG has interacted with VWoA's Auburn Hills, Michigan office by regularly submitting information to VWoA's Auburn Hills office necessary for VWoA to complete the required applications to obtain COCs for the vehicles that Audi AG sells in the United States, including the light duty diesel vehicles addressed in this Complaint. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with VWoA, Audi AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Audi AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Audi AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

9. This Court has personal jurisdiction over Defendant Volkswagen Group of America

VW FOIA, EPA 06/20/2017 2017-FFP_037032

Chattanooga Operations, LLC, under Mich. Comp. Laws § 600.705 because VWoA Chattanooga transacts business in Michigan. In addition, this Court's exercise of jurisdiction over VWoA Chattanooga is consistent with due process.

10. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, VWoA is the corporate parent of VWoA Chattanooga; VWoA Chattanooga manufactures certain Passats; VWoA Chattanooga interacts with VWoA, in connection with vehicle manufacturing and other matters; in connection with this and other interactions with its parent company, VWoA Chattanooga has attended meetings at VWoA's Auburn Hills, Michigan office and/or corresponded, telephoned and otherwise communicated with VWoA's Auburn Hills office. Further, VWoA Chattanooga delivered or arranged for delivery of its cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

11. This Court has personal jurisdiction over Defendant Porsche AG under Mich. Comp. Laws § 600.705 because Porsche AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche AG is consistent with due process.

12. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche AG has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche AG has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor,

Michigan. Further, Porsche AG delivered or arranged for delivery of Porsche cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

13. This Court has personal jurisdiction over Defendant Porsche Cars North America, Inc. under Mich. Comp. Laws § 600.705 because Porsche Cars North America, Inc. transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche Cars North America, Inc. is consistent with due process.

14. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche Cars North America, Inc. has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche Cars North America, Inc. has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche Cars North America, Inc. has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Porsche Cars North America, Inc. delivered or arranged for delivery of Porsche cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

15. Venue is proper in this jurisdiction pursuant to Sections 204 and 205 of the Act, 42 U.S.C. §§ 7523 and 7524, because violations occurred in this judicial district and VWoA has a corporate office within this judicial district.

VW FOIA, EPA 06/20/2017 2017-FFP_037034

DEFENDANTS

16. Volkswagen AG is a publicly-held German corporation.

17. Volkswagen AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

18. Volkswagen AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

19. Volkswagen Group of America, Inc. is incorporated under the laws of the State of New Jersey, and is a wholly-owned subsidiary of Volkswagen AG.

20. Volkswagen Group of America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

21. Volkswagen Group of America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

22. Volkswagen Group of America Chattanooga Operations, LLC is incorporated under the laws of the State of Tennessee, and is a wholly-owned subsidiary of VWoA.

23. Volkswagen Group of America Chattanooga Operations, LLC is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

24. Volkswagen Group of America Chattanooga Operations, LLC is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

25. Audi AG is a German corporation, and is approximately 99.55% owned by Volkswagen AG.

26. Audi AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

27. Audi AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

28. Porsche AG is a German corporation, and is wholly-owned by Volkswagen AG.

29. Porsche AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

30. Porsche AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

31. Porsche Cars North America, Inc. is a Delaware corporation, and is a wholly-owned subsidiary of Porsche AG.

32. Porsche Cars North America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

33. Porsche Cars North America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

34. At all times relevant to this action, VW was engaged in the business of manufacturing new motor vehicles, and selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing (or causing the foregoing with respect to) these vehicles in the United States.

STATUTORY AND REGULATORY BACKGROUND

35. This action arises under Title II of the Act, as amended, 42 U.S.C. § 7521 *et seq.*, and the regulations promulgated thereunder, which aim to protect human health and the environment by reducing emissions of nitrogen oxides ("NOx") and other pollutants from mobile sources of air pollution, including new motor vehicles.

36. NOx is a family of highly reactive gases that play a major role in the atmospheric reactions with volatile organic compounds that produce ozone in the atmosphere. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Breathing ozone can also worsen bronchitis, emphysema, and asthma, and can lead to premature death. Children are at greatest risk of experiencing negative health impacts from exposure to ozone. Additionally, recent scientific studies indicate that the direct health effects of NOx are worse than previously understood, including respiratory problems, damage to lung tissue, and premature death.

37. Section 202(a) of the Act, 42 U.S.C. § 7521(a), requires EPA to promulgate emissions standards for new motor vehicles for NOx, and other air pollutants.

38. 40 C.F.R. Part 86 sets emission standards and test procedures for light-duty motor vehicles, including emission standards for NOx. *See* 40 C.F.R. § 86.1811-04.

A. Certificates of Conformity and Prohibition on Uncertified Motor Vehicles

39. Light-duty vehicles must satisfy emission standards for certain air pollutants. 40 C.F.R. §§ 86.1811-04, 86.1811-09, 86.1811-10. EPA administers a certification program to ensure that every new motor vehicle introduced into United States commerce satisfies applicable emission standards. 42 U.S.C. § 7521. Under this program, EPA issues COCs and thereby

regulates the introduction of new motor vehicles into United States commerce.

40. To obtain a COC, a manufacturer must submit an application to EPA for each model year and for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1843-01. A test group is comprised of vehicles with similar emissions profiles for pollutants regulated under the Act. *See, e.g.,* 40 C.F.R. §§ 86.1803-01, 86.1827-01.

41. Vehicles are covered by a COC only if the vehicles are as described in the manufacturer's application for the COC "in all material respects." 40 C.F.R. § 86.1848-10(c)(6).

42. EPA issues COCs "upon such terms . . . as [the Administrator] may prescribe." 42 U.S.C. § 7525(a)(1); *see also* 40 C.F.R. § 86.1848-01(b) (authorizing EPA to issue COCs on any terms that are necessary and appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

43. Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), prohibits manufacturers of new motor vehicles from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or any person from importing into the United States any new motor vehicle not covered by a COC issued by EPA under regulations prescribed by the Act governing vehicle emission standards. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

B. Prohibition on Defeat Devices and Tampering

44. Each COC application must include, among other things, a list of all auxiliary emission control devices ("AECDs") installed on the vehicles. 40 C.F.R. § 86.1844-01(d)(11).

45. An AECD is "any element of design which senses temperature, vehicle speed, engine [revolutions per minute], transmission gear, manifold vacuum, or any other parameter for

the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.1803-01.

46. An element of design is "any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine." 40 C.F.R. § 86.1803-01.

47. Each COC application must also include "a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device." 40 C.F.R. § 86.1844-01(d)(11).

48. A motor vehicle containing an AECD that can reasonably be expected to affect emission controls and is not disclosed or justified in the COC application does not conform in all material respects with the COC application, and is therefore not covered by the COC.

49. A "defeat device" is an AECD "that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . . . ." 40 C.F.R. § 86.1803-01.

50. Motor vehicles equipped with defeat devices cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86.1809-01, 86.1809-10, 86.1809-12.

51. Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." *See also* 40 C.F.R. § 86.1854-12(a)(3)(ii).

52. Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), prohibits any person from removing or rendering inoperative any device or element of design installed on a motor vehicle in compliance with the regulations promulgated under Title II of the Act prior to its sale and delivery to the ultimate purchaser.

53. It is also a violation to cause any of the acts set forth in Section 203(a)(3). 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

C. Reporting Requirements

54. Section 208(a) of the Act, 42 U.S.C. § 7542(a), requires that "[e]very manufacturer of new motor vehicles . . . establish and maintain records, perform tests . . . make reports, and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting in compliance" with Part A of Title II of the Act.

55. Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), prohibits any person from failing or refusing to make reports or provide information to EPA pursuant to Section 208 of the

Act, 42 U.S.C. § 7542. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

GENERAL ALLEGATIONS

56. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix A to this Complaint ("2.0L Subject Vehicles").

57. Each of the 2.0L Subject Vehicles is equipped with a 2.0 liter diesel engine, and is part of model years 2009-2015.

58. In total, approximately 500,000 2.0L Subject Vehicles were sold in the United States.

59. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for the 2.0L Subject Vehicles.

60. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix B to this Complaint ("3.0L Subject Vehicles").

61. Each of the 3.0L Subject Vehicles is equipped with a 3.0 liter diesel engine, and is part of model years 2009-2016.

62. In total, approximately 80,000 3.0L Subject Vehicles were sold in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_037041

63. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for certain 3.0L Subject Vehicles.

64. Porsche Cars North America, Inc. submitted to EPA, on behalf of itself, and representing Porsche AG, the applications for COCs for certain 3.0L Subject Vehicles.

65. Each COC issued by EPA during the time period relevant to this Complaint states on its face that the certificate covers only those new motor vehicles that conform, in all material respects, to the design specifications provided to EPA in the certificate application for such vehicle.

66. Each application for a COC constitutes a "report [and/or] information the Administrator may reasonably require . . ." to assess compliance with the Act, within the meaning of Section 208(a) of the Act, 42 U.S.C. § 7542(a).

A. The 2.0L Subject Vehicles

67. Each 2.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 2.0L Subject Vehicle.

68. The electronic control module ("ECM") of the 2.0L Subject Vehicles contains software logic and/or calibrations that sense when the vehicle is being tested for compliance with applicable emission standards, based on various inputs including the position of the steering wheel, vehicle speed, the duration of the engine's operation, and barometric pressure. These inputs precisely track the parameters of the federal test procedure ("FTP") and other test cycles used for emission testing required to obtain a COC.

69. During FTP emission testing, the 2.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration that VW has referred to as the "dyno calibration" (referring to the equipment used in emissions testing, called a dynamometer). At all other times during normal vehicle operation, the 2.0L Subject Vehicles' ECM software run a separate "road calibration" that reduces the effectiveness of the emission control system. In other words, the 2.0L Subject Vehicles' ECM software tracks the parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

70. The COC applications for the 2.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 2.0L Subject Vehicles' COC applications.

71. The 2.0L Subject Vehicles therefore are not covered by a COC.

72. This dual-calibration system results in increased NOx emissions by a factor of up to 40 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

73. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

74. VW entities including at least Volkswagen AG, VWoA and Audi AG knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

VW FOIA, EPA 06/20/2017 2017-FFP_037043

75. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

B. The 3.0L Subject Vehicles

76. Each 3.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 3.0L Subject Vehicles.

77. The ECM of the 3.0L Subject Vehicles contains software logic and/or calibrations that cause the vehicle to perform differently when the vehicle is being tested for compliance with applicable emission standards, based on various inputs that appear to track the FTP and/or other test cycles used for emission testing required to obtain a COC, than when the vehicle is in normal operation and use.

78. During FTP emission testing, the 3.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration referred to as the "temperature conditioning mode." At other times during normal vehicle operation, the 3.0L Subject Vehicles' ECM software run a separate "normal mode" that reduces the effectiveness of the emission control system. In other words, the 3.0L Subject Vehicles' ECM software tracks certain parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

79. The COC applications for the 3.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The

VW FOIA, EPA 06/20/2017 2017-FFP_037044

undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 3.0L Subject Vehicles' COC applications.

80. The 3.0L Subject Vehicles therefore are not covered by a COC.

81. This dual-calibration strategy results in increased NOx emissions by a factor of up to 9 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

82. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

83. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG and Porsche Cars North America, Inc. knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

84. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_037045

C. The Investigations and Concealment

85. In or about May 2014, West Virginia University's Center for Alternative Fuels, Engines & Emissions ("WVU") published results of a study commissioned by the International Council on Clean Transportation, and conducted in collaboration with the California Air Resources Board ("CARB"), that found on-road NOx emissions from two 2.0L VW light duty diesel vehicles (2012 Jetta and 2013 Passat) were significantly higher than the applicable emission standards established by EPA regulations.

86. Beginning in or about May 2014 through the present, CARB, in coordination with EPA, has investigated the reasons for the high in-use emissions, repeatedly questioning representatives from VWoA and Volkswagen AG about WVU's findings.

87. In or about October 2014, those VW entities responded that the increased emissions from the vehicles studied by WVU were attributable to various yet-to-be-identified technical issues with the after treatment emission control systems and in-use conditions not represented by the FTP.

88. VW entities including at least VWoA represented to regulators that the vehicles' software could be optimized to address the excess NOx emissions issue and issued a recall in December 2014 and March 2015 for 2.0L vehicles to address the excess emissions issue.

89. From approximately December 2014 through the present, CARB, in coordination with EPA, conducted its own testing to further investigate the reasons behind the high NOx emissions observed on VW's 2.0L light duty diesel vehicles during real world driving conditions, and to investigate the effectiveness of the recall action. This on-road and laboratory testing showed limited reduction in the rates of emission of NOx of the recalled vehicles, and also

revealed that the vehicles exhibited different behaviors during real world driving conditions than during FTP emission testing.

90. During the course of this investigation, VW entities including at least VWoA and Volkswagen AG suggested a number of potential technical issues and in-use conditions that might explain the higher emission test results, but none of those issues adequately explained why the 2.0L Subject Vehicles behaved differently while operating on the FTP test cycles versus while being driven on the road.

91. In or about September 2015, VW entities including at least VWoA and Volkswagen AG admitted that these 2.0L motor vehicles contained a defeat device in the form of a software algorithm or algorithms that detect when the vehicle is undergoing emission testing.

92. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 2.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least VWoA and Volkswagen AG.

93. VW entities including at least Volkswagen AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 2.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

94. On October 8, 2015, Mr. Michael Horn, VWoA President and Chief Executive Officer, testified before the United States House of Representatives Subcommittee on Oversight and Investigations Committee on Energy and Commerce, and admitted that VWoA and

VW FOIA, EPA 06/20/2017 2017-FFP_037047

Volkswagen AG's representations to EPA and CARB that the increased NOx emissions from the 2.0L Subject Vehicles were due to technical issues were false.

95. During his October 8, 2015 testimony, Mr. Horn further admitted that the installation of the "defeat device" in the 2.0L Subject Vehicles was a knowing and willful decision to deceive.

96. Even after EPA issued its September 18, 2015 Notice of Violation to Volkswagen AG, Audi AG, and VWoA, and Mr. Horn's testimony before Congress, VW failed to come forward and reveal to regulators that the 3.0L Subject Vehicles contain one or more undisclosed AECDs, including the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode." The existence of this dual calibration strategy was uncovered only as a result of EPA and CARB's diligence.

97. On November 2, 2015, EPA issued a Notice of Violation to Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc., citing violations of the Act related to the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode," and the resultant excess emissions in certain 3.0L light duty diesel vehicles.

98. VW entities including at least Volkswagen AG immediately issued a statement denying that software had been installed in 3.0L light duty diesel vehicles to alter emissions in a prohibited manner.

99. On or about November 23, 2015, VW entities including at least Volkswagen AG and Audi AG admitted that the 3.0L Subject Vehicles contain three undisclosed AECDs, one of which – the temperature conditioning mode – is regarded as a defeat device under the Act and implementing regulations.

100. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 3.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least Volkswagen AG and Audi AG.

101. VW entities including at least Audi AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 3.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

FIRST CLAIM FOR RELIEF
(Section 203(a)(1): Sale, Offer for Sale, Introduction or Delivery for Introduction into Commerce, or Import of New Motor Vehicles Not Covered by COCs)

102. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

103. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 500,000 2.0L Subject Vehicles that were not covered by COCs (or caused any of the foregoing) because the 2.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 2.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 2.0L Subject Vehicles' emission controls.

104. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 80,000 3.0L Subject Vehicles that were not covered by COCs (or

caused any of the foregoing) because the 3.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 3.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 3.0L Subject Vehicles' emission controls.

105. VW violated Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), by selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing new motor vehicles that were not covered by a COC, or by causing any of the foregoing acts.

106. Each such violation of Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), is a separate offense with respect to each new motor vehicle.

107. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW is liable for injunctive relief and civil penalties of up to $32,500 per vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

SECOND CLAIM FOR RELIEF
(Section 203(a)(3)(B): Manufacture, Sale, Offer for Sale, or Installation of Defeat Device)

108. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

109. VW entities including at least Volkswagen AG, VWoA and Audi AG manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended for use with, or as part of, motor vehicles, including the road-calibration AECDs installed on the 2.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 2.0L

Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Volkswagen AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

110. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended or use with, or as part of, motor vehicles, including the normal mode calibration AECDs installed on the 3.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 3.0L Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Audi AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

111. VW entities including at least Volkswagen AG and Audi AG violated Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), by manufacturing, selling, offering for sale, or installing "defeat devices" on new motor vehicles, or by causing any of the foregoing acts.

112. Each part or component that constitutes a "defeat device" manufactured, sold, offered for sale, or installed on new motor vehicles (or the causing thereof) is a separate violation of Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B).

113. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG and Audi AG are liable for injunctive relief and civil penalties of up to $2,750 per part or component that constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $3,750 per part or component that

constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

THIRD CLAIM FOR RELIEF
(Section 203(a)(3)(A): Tampering)

114. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

115. The road-calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

116. The normal mode calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

117. VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the road-calibration AECDs in the 2.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

118. VW entities including at least Volkswagen AG, Audi AG and Porsche AG violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the normal mode calibration AECDs in the 3.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

VW FOIA, EPA 06/20/2017 2017-FFP_037052

119. Each 2.0L Subject Vehicle equipped with the road-calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

120. Each 3.0L Subject Vehicle equipped with the normal mode calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and Porsche AG of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

121. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG and Porsche AG are liable for injunctive relief and civil penalties of up to $32,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

FOURTH CLAIM FOR RELIEF
(Section 203(a)(2): Reporting Violations)

122. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

123. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to disclose the existence of the road-calibration and/or other AECDs in the COC applications for the 2.0L Subject Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

124. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to disclose the existence of the normal mode calibration and/or other AECDs in the COC applications for the 3.0L Subject

VW FOIA, EPA 06/20/2017 2017-FFP_037053

Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

125. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to provide a justification for the road-calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the road-calibration and/or other AECDs are not a defeat device, in the COC applications for the 2.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

126. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to provide a justification for the normal mode calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the normal mode calibration and/or other AECDs are not a defeat device, in the COC applications for the 3.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

127. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to disclose one or more AECDs in a COC application for a test group of new motor vehicles.

128. VW entities including at least Volkswagen AG, Audi AG and VWoA violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 2.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

VW FOIA, EPA 06/20/2017 2017-FFP_037054

129. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 3.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

130. Each failure to provide reports or information described above is a separate violation of Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2).

131. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. are liable for injunctive relief and civil penalties of up to $32,500 per day of violation of Section 203(a)(2) occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per day of violation for such violations occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff, the United States of America, respectfully requests that the Court provide the following relief:

a. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle not covered by a COC issued by EPA in accordance with the Act and the regulations promulgated thereunder.

b. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the

foregoing acts) any new motor vehicle equipped with an AECD, except in compliance with the Act and the regulations promulgated thereunder.

c. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle equipped with a defeat device.

d. Permanently enjoin VW from bypassing, defeating, or rendering inoperative any device or element of design installed on or in a new motor vehicle in compliance with regulations promulgated under Title II of the Act.

e. Order VW to take appropriate steps, including, but not limited to, mitigation of excess NOx emissions, to remedy the violations of Sections 203(a)(1), 203(a)(3)(A), and 203(a)(3)(B) alleged above.

f. Enter a judgment that VW is liable to the United States for civil penalties for each violation of Section 203(a) of the Act, and assess civil penalties against VW as follows:

i. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(1) of the Act;

ii. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(A) of the Act;

iii. up to $2,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $3,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(B) of the Act; and

iv. up to $32,500 per day of violation occurring before January 13, 2009, and up to $37,500 per day of violation occurring on or after January 13, 2009 for violations of Section 203(a)(2) of the Act.

g. Award the United States its costs in this action; and

h. Grant such other and further relief as the Court deems just and proper.

VW FOIA, EPA 06/20/2017 2017-FFP_037057

Respectfully submitted,

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s/ Bethany Engel
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VW FOIA, EPA 06/20/2017 2017-FFP_037058

United States v. Volkswagen AG, et al.

APPENDIX A TO COMPLAINT

Identification of the 2.0L Subject Vehicles

Model Year	EPA Test Group	Vehicle Make and Model(s)
2009	9VWXV02.035N	VW Jetta, VW Jetta Sportwagen
2009	9VWXV02.0U5N	VW Jetta, VW Jetta Sportwagen
2010	AVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2011	BVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U4S	VW Passat
2013	DVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2013	DVWXV02.0U4S	VW Passat
2014	EVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2014	EVWXV02.0U4S	VW Passat
2015	FVGAV02.0VAL	VW Beetle, VW Beetle Convertible, VW Golf, VW Golf Sportwagen, VW Jetta, VW Passat, Audi A3

United States v. Volkswagen AG, et al.

APPENDIX B TO COMPLAINT

Identification of the 3.0L Subject Vehicles

Model Year	EPA Test Group(s)	Vehicle Make and Model(s)
2009	9ADXT03.03LD	VW Touareg, Audi Q7
2010	AADXT03.03LD	VW Touareg, Audi Q7
2011	BADXT03.02UG BADXT03.03UG	VW Touareg Audi Q7
2012	CADXT03.02UG CADXT03.03UG	VW Touareg Audi Q7
2013	DADXT03.02UG DADXT03.03UG DPRXT03.0CDD	VW Touareg Audi Q7 Cayenne Diesel
2014	EADXT03.02UG EADXT03.03UG EPRXT03.0CDD EADXJ03.04UG	VW Touareg Audi Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2015	FVGAT03.0NU2 FVGAT03.0NU3 FPRXT03.0CDD FVGAJ03.0NU4	VW Touareg Audi: Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2016	GVGAT03.0NU2 GPRXT03.0CDD GVGAJ03.0NU4	VW Touareg Cayenne Diesel A6 quattro, A7 quattro,A8, A8L, Q5

U.S. District Court
Eastern District of Michigan (Detroit)
CIVIL DOCKET FOR CASE #: 2:16-cv-10006-LJM-MJH

United States of America v. Volkswagen AG et al
Assigned to: District Judge Laurie J. Michelson
Referred to: Magistrate Judge Michael J. Hluchaniuk
Cause: Civil Miscellaneous Case

Date Filed: 01/04/2016
Jury Demand: None
Nature of Suit: 893 Environmental Matters
Jurisdiction: U.S. Government Plaintiff

Plaintiff

United States of America represented by **Bethany Engel**
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ATTORNEY TO BE NOTICED

V.

Defendant

Volkswagen AG

Defendant

Audi AG

Defendant

Volkswagen Group of America, Inc.

Defendant

Volkswagen Group of America Chattanooga Operations LLC

Defendant

Porsche AG

Defendant

Porsche Cars North America, Inc.

Date Filed	#	Docket Text

VW FOIA, EPA 06/20/2017 2017-FFP_037061

01/04/2016	1	COMPLAINT filed by United States of America against All Defendants. Plaintiff requests summons issued. No Fee Required - US Government. County of 1st Plaintiff: USA - County Where Action Arose: USA - County of 1st Defendant: Out of Country. [Previously dismissed case: No] [Possible companion case(s): United States District Court for the Northern District of California, 3:15-md-02672, Judge Honorable Charles R. Breyer] (Engel, Bethany) (Entered: 01/04/2016)

PACER Service Center			
Transaction Receipt			
01/04/2016 13:03:27			
PACER Login:	de5136:3985528:4299065	**Client Code:**	
Description:	Docket Report	**Search Criteria:**	2:16-cv-10006-LJM-MJH
Billable Pages:	1	**Cost:**	0.10

VW FOIA, EPA 06/20/2017 2017-FFP_037062

BEFORE THE UNITED STATES JUDICIAL PANEL ON MULTIDISTRICT LITIGATION

In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation	)	**MDL NO. 2672**

NOTICE OF POTENTIAL TAG-ALONG ACTION

The United States of America hereby notifies the Clerk of the United States Judicial Panel on Multidistrict Litigation of the following potential tag-along action.

Case Name	Case No.	Court	Judge
United States of America v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc.	2:16-cv-10006	United States District Court for the Eastern District of Michigan	District Judge Laurie J. Michelson

A copy of the United States' complaint and corresponding docket sheet are attached hereto as Exhibit 1. As the United States' complaint involves common factual questions with those actions transferred to the Honorable Charles R. Breyer of the United States District Court for the Northern District of California, the United States requests inclusion of this action in the multi-district litigation for coordinated pretrial proceedings.

VW FOIA, EPA 06/20/2017 2017-FFP_037063

Respectfully submitted,

For the United States of America

Dated: January 4, 2016

JOHN C. CRUDEN
Assistant Attorney General
Environment and Natural Resources Division
United States Department of Justice

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VW FOIA, EPA 06/20/2017 2017-FFP_037064

BEFORE THE UNITED STATES JUDICIAL PANEL ON MULTIDISTRICT LITIGATION

In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation	)	**MDL NO. 2672**

SCHEDULE OF ACTIONS

Case Name	Case No.	Court	Judge
United States of America v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc.	2:16-cv-10006	United States District Court for the Eastern District of Michigan	District Judge Laurie J. Michelson

VW FOIA, EPA 06/20/2017 2017-FFP_037065

BEFORE THE UNITED STATES JUDICIAL PANEL ON MULTIDISTRICT LITIGATION

In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation	)	**MDL NO. 2672**

PROOF OF SERVICE

I hereby certify that an electronic copy of the foregoing Notice of Potential Tag-Along Action, and attached Schedule of Actions and Proof of Service, were filed in MDL No. 2672 on January 4, 2016, and were served by the Panel's CM/ECF service on all counsel of record and interested parties.

Respectfully submitted,

Dated: January 4, 2016

/s/ Joshua Van Eaton
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VW FOIA, EPA 06/20/2017 2017-FFP_037066

EXHIBIT 1

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc., Defendants.	Civil Action No.

COMPLAINT

The United States of America, by authority of the Attorney General of the United States and at the request of the Administrator of the United States Environmental Protection Agency ("EPA"), files this complaint and alleges as follows:

NATURE OF ACTION

1. This is a civil action brought pursuant to Sections 204 and 205 of the Clean Air Act ("Act"), 42 U.S.C. §§ 7523 and 7524, for injunctive relief and the assessment of civil penalties against Volkswagen AG, Audi AG, Volkswagen Group of America, Inc. ("VWoA"), Volkswagen Group of America Chattanooga Operations, LLC ("VWoA Chattanooga"), Dr. Ing. h.c. F. Porsche AG ("Porsche AG"), and Porsche Cars North America, Inc. (collectively, "VW") for violations of the Act and regulations promulgated thereunder.

JURISDICTION AND VENUE

2. This Court has jurisdiction over the subject matter of and the parties to this action pursuant to Sections 203, 204, and 205 of the Act, 42 U.S.C. §§ 7522, 7523, and 7524, and 28 U.S.C. §§ 1331, 1345, and 1355.

3. This Court has personal jurisdiction over Defendant Volkswagen AG under Mich. Comp. Laws § 600.705 because Volkswagen AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Defendant Volkswagen AG is consistent with due process.

4. Among other things, Defendant Volkswagen AG interacts with Defendant VWoA, its wholly-owned subsidiary, which has an office in Auburn Hills, Michigan and this judicial district, by regularly submitting information to VWoA necessary for VWoA to complete the required applications to obtain certificates of conformity ("COCs") for a significant number of the vehicles Volkswagen AG sells in the United States. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with its wholly-owned subsidiary, Volkswagen AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Volkswagen AG has also attended meetings at, and had other communications with, EPA's Ann Arbor, Michigan Office of Transportation and Air Quality ("OTAQ"), the EPA office in charge of issuing COCs. Further, Volkswagen AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

5. This Court has personal jurisdiction over Defendant VWoA under Mich. Comp. Laws § 600.705 because it transacts business in Michigan. In addition, this Court's exercise of

jurisdiction over VWoA is consistent with due process.

6. Among other things, VWoA has an Engineering and Environmental Office in Auburn Hills, Michigan from which it interacts with EPA OTAQ in connection with obtaining many of the COCs for vehicles sold in the United States, including many of the light duty diesel vehicles addressed in this Complaint. Further, VWoA delivered or arranged for delivery of many of the vehicles addressed in this Complaint, within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

7. This Court has personal jurisdiction over Defendant Audi AG under Mich. Comp. Laws § 600.705 because Audi AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Audi AG is consistent with due process.

8. Among other things, Audi AG has interacted with VWoA's Auburn Hills, Michigan office by regularly submitting information to VWoA's Auburn Hills office necessary for VWoA to complete the required applications to obtain COCs for the vehicles that Audi AG sells in the United States, including the light duty diesel vehicles addressed in this Complaint. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with VWoA, Audi AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Audi AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Audi AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

9. This Court has personal jurisdiction over Defendant Volkswagen Group of America

Chattanooga Operations, LLC, under Mich. Comp. Laws § 600.705 because VWoA Chattanooga transacts business in Michigan. In addition, this Court's exercise of jurisdiction over VWoA Chattanooga is consistent with due process.

10. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, VWoA is the corporate parent of VWoA Chattanooga; VWoA Chattanooga manufactures certain Passats; VWoA Chattanooga interacts with VWoA, in connection with vehicle manufacturing and other matters; in connection with this and other interactions with its parent company, VWoA Chattanooga has attended meetings at VWoA's Auburn Hills, Michigan office and/or corresponded, telephoned and otherwise communicated with VWoA's Auburn Hills office. Further, VWoA Chattanooga delivered or arranged for delivery of its cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

11. This Court has personal jurisdiction over Defendant Porsche AG under Mich. Comp. Laws § 600.705 because Porsche AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche AG is consistent with due process.

12. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche AG has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche AG has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor,

Michigan. Further, Porsche AG delivered or arranged for delivery of Porsche cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

13. This Court has personal jurisdiction over Defendant Porsche Cars North America, Inc. under Mich. Comp. Laws § 600.705 because Porsche Cars North America, Inc. transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche Cars North America, Inc. is consistent with due process.

14. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche Cars North America, Inc. has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche Cars North America, Inc. has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche Cars North America, Inc. has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Porsche Cars North America, Inc. delivered or arranged for delivery of Porsche cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

15. Venue is proper in this jurisdiction pursuant to Sections 204 and 205 of the Act, 42 U.S.C. §§ 7523 and 7524, because violations occurred in this judicial district and VWoA has a corporate office within this judicial district.

DEFENDANTS

16. Volkswagen AG is a publicly-held German corporation.

17. Volkswagen AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

18. Volkswagen AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

19. Volkswagen Group of America, Inc. is incorporated under the laws of the State of New Jersey, and is a wholly-owned subsidiary of Volkswagen AG.

20. Volkswagen Group of America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

21. Volkswagen Group of America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

22. Volkswagen Group of America Chattanooga Operations, LLC is incorporated under the laws of the State of Tennessee, and is a wholly-owned subsidiary of VWoA.

23. Volkswagen Group of America Chattanooga Operations, LLC is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

24. Volkswagen Group of America Chattanooga Operations, LLC is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

25. Audi AG is a German corporation, and is approximately 99.55% owned by Volkswagen AG.

26. Audi AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

27. Audi AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

28. Porsche AG is a German corporation, and is wholly-owned by Volkswagen AG.

29. Porsche AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

30. Porsche AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

31. Porsche Cars North America, Inc. is a Delaware corporation, and is a wholly-owned subsidiary of Porsche AG.

32. Porsche Cars North America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

33. Porsche Cars North America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

34. At all times relevant to this action, VW was engaged in the business of manufacturing new motor vehicles, and selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing (or causing the foregoing with respect to) these vehicles in the United States.

STATUTORY AND REGULATORY BACKGROUND

35. This action arises under Title II of the Act, as amended, 42 U.S.C. § 7521 *et seq.*, and the regulations promulgated thereunder, which aim to protect human health and the environment by reducing emissions of nitrogen oxides ("NOx") and other pollutants from mobile sources of air pollution, including new motor vehicles.

36. NOx is a family of highly reactive gases that play a major role in the atmospheric reactions with volatile organic compounds that produce ozone in the atmosphere. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Breathing ozone can also worsen bronchitis, emphysema, and asthma, and can lead to premature death. Children are at greatest risk of experiencing negative health impacts from exposure to ozone. Additionally, recent scientific studies indicate that the direct health effects of NOx are worse than previously understood, including respiratory problems, damage to lung tissue, and premature death.

37. Section 202(a) of the Act, 42 U.S.C. § 7521(a), requires EPA to promulgate emissions standards for new motor vehicles for NOx, and other air pollutants.

38. 40 C.F.R. Part 86 sets emission standards and test procedures for light-duty motor vehicles, including emission standards for NOx. *See* 40 C.F.R. § 86.1811-04.

A. Certificates of Conformity and Prohibition on Uncertified Motor Vehicles

39. Light-duty vehicles must satisfy emission standards for certain air pollutants. 40 C.F.R. §§ 86.1811-04, 86.1811-09, 86.1811-10. EPA administers a certification program to ensure that every new motor vehicle introduced into United States commerce satisfies applicable emission standards. 42 U.S.C. § 7521. Under this program, EPA issues COCs and thereby

regulates the introduction of new motor vehicles into United States commerce.

40. To obtain a COC, a manufacturer must submit an application to EPA for each model year and for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1843-01. A test group is comprised of vehicles with similar emissions profiles for pollutants regulated under the Act. *See, e.g.,* 40 C.F.R. §§ 86.1803-01, 86.1827-01.

41. Vehicles are covered by a COC only if the vehicles are as described in the manufacturer's application for the COC "in all material respects." 40 C.F.R. § 86.1848-10(c)(6).

42. EPA issues COCs "upon such terms . . . as [the Administrator] may prescribe." 42 U.S.C. § 7525(a)(1); *see also* 40 C.F.R. § 86.1848-01(b) (authorizing EPA to issue COCs on any terms that are necessary and appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

43. Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), prohibits manufacturers of new motor vehicles from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or any person from importing into the United States any new motor vehicle not covered by a COC issued by EPA under regulations prescribed by the Act governing vehicle emission standards. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

B. Prohibition on Defeat Devices and Tampering

44. Each COC application must include, among other things, a list of all auxiliary emission control devices ("AECDs") installed on the vehicles. 40 C.F.R. § 86.1844-01(d)(11).

45. An AECD is "any element of design which senses temperature, vehicle speed, engine [revolutions per minute], transmission gear, manifold vacuum, or any other parameter for

the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.1803-01.

46. An element of design is "any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine." 40 C.F.R. § 86.1803-01.

47. Each COC application must also include "a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device." 40 C.F.R. § 86.1844-01(d)(11).

48. A motor vehicle containing an AECD that can reasonably be expected to affect emission controls and is not disclosed or justified in the COC application does not conform in all material respects with the COC application, and is therefore not covered by the COC.

49. A "defeat device" is an AECD "that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . . . ." 40 C.F.R. § 86.1803-01.

50. Motor vehicles equipped with defeat devices cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86.1809-01, 86.1809-10, 86.1809-12.

51. Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." *See also* 40 C.F.R. § 86.1854-12(a)(3)(ii).

52. Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), prohibits any person from removing or rendering inoperative any device or element of design installed on a motor vehicle in compliance with the regulations promulgated under Title II of the Act prior to its sale and delivery to the ultimate purchaser.

53. It is also a violation to cause any of the acts set forth in Section 203(a)(3). 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

C. Reporting Requirements

54. Section 208(a) of the Act, 42 U.S.C. § 7542(a), requires that "[e]very manufacturer of new motor vehicles . . . establish and maintain records, perform tests . . . make reports, and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting in compliance" with Part A of Title II of the Act.

55. Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), prohibits any person from failing or refusing to make reports or provide information to EPA pursuant to Section 208 of the

Act, 42 U.S.C. § 7542. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

GENERAL ALLEGATIONS

56. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix A to this Complaint ("2.0L Subject Vehicles").

57. Each of the 2.0L Subject Vehicles is equipped with a 2.0 liter diesel engine, and is part of model years 2009-2015.

58. In total, approximately 500,000 2.0L Subject Vehicles were sold in the United States.

59. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for the 2.0L Subject Vehicles.

60. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix B to this Complaint ("3.0L Subject Vehicles").

61. Each of the 3.0L Subject Vehicles is equipped with a 3.0 liter diesel engine, and is part of model years 2009-2016.

62. In total, approximately 80,000 3.0L Subject Vehicles were sold in the United States.

63. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for certain 3.0L Subject Vehicles.

64. Porsche Cars North America, Inc. submitted to EPA, on behalf of itself, and representing Porsche AG, the applications for COCs for certain 3.0L Subject Vehicles.

65. Each COC issued by EPA during the time period relevant to this Complaint states on its face that the certificate covers only those new motor vehicles that conform, in all material respects, to the design specifications provided to EPA in the certificate application for such vehicle.

66. Each application for a COC constitutes a "report [and/or] information the Administrator may reasonably require . . ." to assess compliance with the Act, within the meaning of Section 208(a) of the Act, 42 U.S.C. § 7542(a).

A. The 2.0L Subject Vehicles

67. Each 2.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 2.0L Subject Vehicle.

68. The electronic control module ("ECM") of the 2.0L Subject Vehicles contains software logic and/or calibrations that sense when the vehicle is being tested for compliance with applicable emission standards, based on various inputs including the position of the steering wheel, vehicle speed, the duration of the engine's operation, and barometric pressure. These inputs precisely track the parameters of the federal test procedure ("FTP") and other test cycles used for emission testing required to obtain a COC.

69. During FTP emission testing, the 2.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration that VW has referred to as the "dyno calibration" (referring to the equipment used in emissions testing, called a dynamometer). At all other times during normal vehicle operation, the 2.0L Subject Vehicles' ECM software run a separate "road calibration" that reduces the effectiveness of the emission control system. In other words, the 2.0L Subject Vehicles' ECM software tracks the parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

70. The COC applications for the 2.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 2.0L Subject Vehicles' COC applications.

71. The 2.0L Subject Vehicles therefore are not covered by a COC.

72. This dual-calibration system results in increased NOx emissions by a factor of up to 40 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

73. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

74. VW entities including at least Volkswagen AG, VWoA and Audi AG knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

VW FOIA, EPA 06/20/2017 2017-FFP_037081

75. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

B. The 3.0L Subject Vehicles

76. Each 3.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 3.0L Subject Vehicles.

77. The ECM of the 3.0L Subject Vehicles contains software logic and/or calibrations that cause the vehicle to perform differently when the vehicle is being tested for compliance with applicable emission standards, based on various inputs that appear to track the FTP and/or other test cycles used for emission testing required to obtain a COC, than when the vehicle is in normal operation and use.

78. During FTP emission testing, the 3.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration referred to as the "temperature conditioning mode." At other times during normal vehicle operation, the 3.0L Subject Vehicles' ECM software run a separate "normal mode" that reduces the effectiveness of the emission control system. In other words, the 3.0L Subject Vehicles' ECM software tracks certain parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

79. The COC applications for the 3.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The

VW FOIA, EPA 06/20/2017 2017-FFP_037082

undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 3.0L Subject Vehicles' COC applications.

80. The 3.0L Subject Vehicles therefore are not covered by a COC.

81. This dual-calibration strategy results in increased NOx emissions by a factor of up to 9 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

82. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

83. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG and Porsche Cars North America, Inc. knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

84. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_037083

C. The Investigations and Concealment

85. In or about May 2014, West Virginia University's Center for Alternative Fuels, Engines & Emissions ("WVU") published results of a study commissioned by the International Council on Clean Transportation, and conducted in collaboration with the California Air Resources Board ("CARB"), that found on-road NOx emissions from two 2.0L VW light duty diesel vehicles (2012 Jetta and 2013 Passat) were significantly higher than the applicable emission standards established by EPA regulations.

86. Beginning in or about May 2014 through the present, CARB, in coordination with EPA, has investigated the reasons for the high in-use emissions, repeatedly questioning representatives from VWoA and Volkswagen AG about WVU's findings.

87. In or about October 2014, those VW entities responded that the increased emissions from the vehicles studied by WVU were attributable to various yet-to-be-identified technical issues with the after treatment emission control systems and in-use conditions not represented by the FTP.

88. VW entities including at least VWoA represented to regulators that the vehicles' software could be optimized to address the excess NOx emissions issue and issued a recall in December 2014 and March 2015 for 2.0L vehicles to address the excess emissions issue.

89. From approximately December 2014 through the present, CARB, in coordination with EPA, conducted its own testing to further investigate the reasons behind the high NOx emissions observed on VW's 2.0L light duty diesel vehicles during real world driving conditions, and to investigate the effectiveness of the recall action. This on-road and laboratory testing showed limited reduction in the rates of emission of NOx of the recalled vehicles, and also

revealed that the vehicles exhibited different behaviors during real world driving conditions than during FTP emission testing.

90. During the course of this investigation, VW entities including at least VWoA and Volkswagen AG suggested a number of potential technical issues and in-use conditions that might explain the higher emission test results, but none of those issues adequately explained why the 2.0L Subject Vehicles behaved differently while operating on the FTP test cycles versus while being driven on the road.

91. In or about September 2015, VW entities including at least VWoA and Volkswagen AG admitted that these 2.0L motor vehicles contained a defeat device in the form of a software algorithm or algorithms that detect when the vehicle is undergoing emission testing.

92. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 2.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least VWoA and Volkswagen AG.

93. VW entities including at least Volkswagen AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 2.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

94. On October 8, 2015, Mr. Michael Horn, VWoA President and Chief Executive Officer, testified before the United States House of Representatives Subcommittee on Oversight and Investigations Committee on Energy and Commerce, and admitted that VWoA and

Volkswagen AG's representations to EPA and CARB that the increased NOx emissions from the 2.0L Subject Vehicles were due to technical issues were false.

95. During his October 8, 2015 testimony, Mr. Horn further admitted that the installation of the "defeat device" in the 2.0L Subject Vehicles was a knowing and willful decision to deceive.

96. Even after EPA issued its September 18, 2015 Notice of Violation to Volkswagen AG, Audi AG, and VWoA, and Mr. Horn's testimony before Congress, VW failed to come forward and reveal to regulators that the 3.0L Subject Vehicles contain one or more undisclosed AECDs, including the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode." The existence of this dual calibration strategy was uncovered only as a result of EPA and CARB's diligence.

97. On November 2, 2015, EPA issued a Notice of Violation to Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc., citing violations of the Act related to the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode," and the resultant excess emissions in certain 3.0L light duty diesel vehicles.

98. VW entities including at least Volkswagen AG immediately issued a statement denying that software had been installed in 3.0L light duty diesel vehicles to alter emissions in a prohibited manner.

99. On or about November 23, 2015, VW entities including at least Volkswagen AG and Audi AG admitted that the 3.0L Subject Vehicles contain three undisclosed AECDs, one of which – the temperature conditioning mode – is regarded as a defeat device under the Act and implementing regulations.

100. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 3.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least Volkswagen AG and Audi AG.

101. VW entities including at least Audi AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 3.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

FIRST CLAIM FOR RELIEF
(Section 203(a)(1): Sale, Offer for Sale, Introduction or Delivery for Introduction into Commerce, or Import of New Motor Vehicles Not Covered by COCs)

102. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

103. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 500,000 2.0L Subject Vehicles that were not covered by COCs (or caused any of the foregoing) because the 2.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 2.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 2.0L Subject Vehicles' emission controls.

104. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 80,000 3.0L Subject Vehicles that were not covered by COCs (or

caused any of the foregoing) because the 3.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 3.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 3.0L Subject Vehicles' emission controls.

105. VW violated Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), by selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing new motor vehicles that were not covered by a COC, or by causing any of the foregoing acts.

106. Each such violation of Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), is a separate offense with respect to each new motor vehicle.

107. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW is liable for injunctive relief and civil penalties of up to $32,500 per vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

SECOND CLAIM FOR RELIEF
(Section 203(a)(3)(B): Manufacture, Sale, Offer for Sale, or Installation of Defeat Device)

108. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

109. VW entities including at least Volkswagen AG, VWoA and Audi AG manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended for use with, or as part of, motor vehicles, including the road-calibration AECDs installed on the 2.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 2.0L

Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Volkswagen AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

110. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended or use with, or as part of, motor vehicles, including the normal mode calibration AECDs installed on the 3.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 3.0L Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Audi AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

111. VW entities including at least Volkswagen AG and Audi AG violated Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), by manufacturing, selling, offering for sale, or installing "defeat devices" on new motor vehicles, or by causing any of the foregoing acts.

112. Each part or component that constitutes a "defeat device" manufactured, sold, offered for sale, or installed on new motor vehicles (or the causing thereof) is a separate violation of Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B).

113. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG and Audi AG are liable for injunctive relief and civil penalties of up to $2,750 per part or component that constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $3,750 per part or component that

constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

THIRD CLAIM FOR RELIEF
(Section 203(a)(3)(A): Tampering)

114. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

115. The road-calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

116. The normal mode calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

117. VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the road-calibration AECDs in the 2.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

118. VW entities including at least Volkswagen AG, Audi AG and Porsche AG violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the normal mode calibration AECDs in the 3.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

VW FOIA, EPA 06/20/2017 2017-FFP_037090

119. Each 2.0L Subject Vehicle equipped with the road-calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

120. Each 3.0L Subject Vehicle equipped with the normal mode calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and Porsche AG of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

121. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG and Porsche AG are liable for injunctive relief and civil penalties of up to $32,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

FOURTH CLAIM FOR RELIEF
(Section 203(a)(2): Reporting Violations)

122. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

123. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to disclose the existence of the road-calibration and/or other AECDs in the COC applications for the 2.0L Subject Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

124. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to disclose the existence of the normal mode calibration and/or other AECDs in the COC applications for the 3.0L Subject

VW FOIA, EPA 06/20/2017 2017-FFP_037091

Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

125. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to provide a justification for the road-calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the road-calibration and/or other AECDs are not a defeat device, in the COC applications for the 2.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

126. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to provide a justification for the normal mode calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the normal mode calibration and/or other AECDs are not a defeat device, in the COC applications for the 3.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

127. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to disclose one or more AECDs in a COC application for a test group of new motor vehicles.

128. VW entities including at least Volkswagen AG, Audi AG and VWoA violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 2.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

129. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 3.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

130. Each failure to provide reports or information described above is a separate violation of Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2).

131. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. are liable for injunctive relief and civil penalties of up to $32,500 per day of violation of Section 203(a)(2) occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per day of violation for such violations occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff, the United States of America, respectfully requests that the Court provide the following relief:

a. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle not covered by a COC issued by EPA in accordance with the Act and the regulations promulgated thereunder.

b. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the

foregoing acts) any new motor vehicle equipped with an AECD, except in compliance with the Act and the regulations promulgated thereunder.

c. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle equipped with a defeat device.

d. Permanently enjoin VW from bypassing, defeating, or rendering inoperative any device or element of design installed on or in a new motor vehicle in compliance with regulations promulgated under Title II of the Act.

e. Order VW to take appropriate steps, including, but not limited to, mitigation of excess NOx emissions, to remedy the violations of Sections 203(a)(1), 203(a)(3)(A), and 203(a)(3)(B) alleged above.

f. Enter a judgment that VW is liable to the United States for civil penalties for each violation of Section 203(a) of the Act, and assess civil penalties against VW as follows:

i. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(1) of the Act;

ii. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(A) of the Act;

iii. up to $2,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $3,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(B) of the Act; and

iv. up to $32,500 per day of violation occurring before January 13, 2009, and up to $37,500 per day of violation occurring on or after January 13, 2009 for violations of Section 203(a)(2) of the Act.

g. Award the United States its costs in this action; and

h. Grant such other and further relief as the Court deems just and proper.

VW FOIA, EPA 06/20/2017 2017-FFP_037095

Respectfully submitted,

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VW FOIA, EPA 06/20/2017 2017-FFP_037096

United States v. Volkswagen AG, et al.

APPENDIX A TO COMPLAINT

Identification of the 2.0L Subject Vehicles

Model Year	EPA Test Group	Vehicle Make and Model(s)
2009	9VWXV02.035N	VW Jetta, VW Jetta Sportwagen
2009	9VWXV02.0U5N	VW Jetta, VW Jetta Sportwagen
2010	AVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2011	BVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U4S	VW Passat
2013	DVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2013	DVWXV02.0U4S	VW Passat
2014	EVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2014	EVWXV02.0U4S	VW Passat
2015	FVGAV02.0VAL	VW Beetle, VW Beetle Convertible, VW Golf, VW Golf Sportwagen, VW Jetta, VW Passat, Audi A3

United States v. Volkswagen AG, et al.

APPENDIX B TO COMPLAINT

Identification of the 3.0L Subject Vehicles

Model Year	EPA Test Group(s)	Vehicle Make and Model(s)
2009	9ADXT03.03LD	VW Touareg, Audi Q7
2010	AADXT03.03LD	VW Touareg, Audi Q7
2011	BADXT03.02UG BADXT03.03UG	VW Touareg Audi Q7
2012	CADXT03.02UG CADXT03.03UG	VW Touareg Audi Q7
2013	DADXT03.02UG DADXT03.03UG DPRXT03.0CDD	VW Touareg Audi Q7 Cayenne Diesel
2014	EADXT03.02UG EADXT03.03UG EPRXT03.0CDD EADXJ03.04UG	VW Touareg Audi Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2015	FVGAT03.0NU2 FVGAT03.0NU3 FPRXT03.0CDD FVGAJ03.0NU4	VW Touareg Audi: Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2016	GVGAT03.0NU2 GPRXT03.0CDD GVGAJ03.0NU4	VW Touareg Cayenne Diesel A6 quattro, A7 quattro,A8, A8L, Q5

U.S. District Court
Eastern District of Michigan (Detroit)
CIVIL DOCKET FOR CASE #: 2:16-cv-10006-LJM-MJH

United States of America v. Volkswagen AG et al
Assigned to: District Judge Laurie J. Michelson
Referred to: Magistrate Judge Michael J. Hluchaniuk
Cause: Civil Miscellaneous Case

Date Filed: 01/04/2016
Jury Demand: None
Nature of Suit: 893 Environmental Matters
Jurisdiction: U.S. Government Plaintiff

Plaintiff

United States of America

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ATTORNEY TO BE NOTICED

V.

Defendant

Volkswagen AG

Defendant

Audi AG

Defendant

Volkswagen Group of America, Inc.

Defendant

Volkswagen Group of America Chattanooga Operations LLC

Defendant

Porsche AG

Defendant

Porsche Cars North America, Inc.

Date Filed	#	Docket Text

VW FOIA, EPA 06/20/2017 2017-FFP_037099

01/04/2016	1	COMPLAINT filed by United States of America against All Defendants. Plaintiff requests summons issued. No Fee Required - US Government. County of 1st Plaintiff: USA - County Where Action Arose: USA - County of 1st Defendant: Out of Country. [Previously dismissed case: No] [Possible companion case(s): United States District Court for the Northern District of California, 3:15-md-02672, Judge Honorable Charles R. Breyer] (Engel, Bethany) (Entered: 01/04/2016)

PACER Service Center			
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VW FOIA, EPA 06/20/2017 2017-FFP_037100

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc., Defendants.	Civil Action No.

COMPLAINT

The United States of America, by authority of the Attorney General of the United States and at the request of the Administrator of the United States Environmental Protection Agency ("EPA"), files this complaint and alleges as follows:

NATURE OF ACTION

1. This is a civil action brought pursuant to Sections 204 and 205 of the Clean Air Act ("Act"), 42 U.S.C. §§ 7523 and 7524, for injunctive relief and the assessment of civil penalties against Volkswagen AG, Audi AG, Volkswagen Group of America, Inc. ("VWoA"), Volkswagen Group of America Chattanooga Operations, LLC ("VWoA Chattanooga"), Dr. Ing. h.c. F. Porsche AG ("Porsche AG"), and Porsche Cars North America, Inc. (collectively, "VW") for violations of the Act and regulations promulgated thereunder.

JURISDICTION AND VENUE

2. This Court has jurisdiction over the subject matter of and the parties to this action pursuant to Sections 203, 204, and 205 of the Act, 42 U.S.C. §§ 7522, 7523, and 7524, and 28 U.S.C. §§ 1331, 1345, and 1355.

3. This Court has personal jurisdiction over Defendant Volkswagen AG under Mich. Comp. Laws § 600.705 because Volkswagen AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Defendant Volkswagen AG is consistent with due process.

4. Among other things, Defendant Volkswagen AG interacts with Defendant VWoA, its wholly-owned subsidiary, which has an office in Auburn Hills, Michigan and this judicial district, by regularly submitting information to VWoA necessary for VWoA to complete the required applications to obtain certificates of conformity ("COCs") for a significant number of the vehicles Volkswagen AG sells in the United States. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with its wholly-owned subsidiary, Volkswagen AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Volkswagen AG has also attended meetings at, and had other communications with, EPA's Ann Arbor, Michigan Office of Transportation and Air Quality ("OTAQ"), the EPA office in charge of issuing COCs. Further, Volkswagen AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

5. This Court has personal jurisdiction over Defendant VWoA under Mich. Comp. Laws § 600.705 because it transacts business in Michigan. In addition, this Court's exercise of

jurisdiction over VWoA is consistent with due process.

6. Among other things, VWoA has an Engineering and Environmental Office in Auburn Hills, Michigan from which it interacts with EPA OTAQ in connection with obtaining many of the COCs for vehicles sold in the United States, including many of the light duty diesel vehicles addressed in this Complaint. Further, VWoA delivered or arranged for delivery of many of the vehicles addressed in this Complaint, within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

7. This Court has personal jurisdiction over Defendant Audi AG under Mich. Comp. Laws § 600.705 because Audi AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Audi AG is consistent with due process.

8. Among other things, Audi AG has interacted with VWoA's Auburn Hills, Michigan office by regularly submitting information to VWoA's Auburn Hills office necessary for VWoA to complete the required applications to obtain COCs for the vehicles that Audi AG sells in the United States, including the light duty diesel vehicles addressed in this Complaint. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with VWoA, Audi AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Audi AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Audi AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

9. This Court has personal jurisdiction over Defendant Volkswagen Group of America

VW FOIA, EPA 06/20/2017 2017-FFP_037103

Chattanooga Operations, LLC, under Mich. Comp. Laws § 600.705 because VWoA Chattanooga transacts business in Michigan. In addition, this Court's exercise of jurisdiction over VWoA Chattanooga is consistent with due process.

10. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, VWoA is the corporate parent of VWoA Chattanooga; VWoA Chattanooga manufactures certain Passats; VWoA Chattanooga interacts with VWoA, in connection with vehicle manufacturing and other matters; in connection with this and other interactions with its parent company, VWoA Chattanooga has attended meetings at VWoA's Auburn Hills, Michigan office and/or corresponded, telephoned and otherwise communicated with VWoA's Auburn Hills office. Further, VWoA Chattanooga delivered or arranged for delivery of its cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

11. This Court has personal jurisdiction over Defendant Porsche AG under Mich. Comp. Laws § 600.705 because Porsche AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche AG is consistent with due process.

12. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche AG has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche AG has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor,

VW FOIA, EPA 06/20/2017 2017-FFP_037104

Michigan. Further, Porsche AG delivered or arranged for delivery of Porsche cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

13. This Court has personal jurisdiction over Defendant Porsche Cars North America, Inc. under Mich. Comp. Laws § 600.705 because Porsche Cars North America, Inc. transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche Cars North America, Inc. is consistent with due process.

14. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche Cars North America, Inc. has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche Cars North America, Inc. has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche Cars North America, Inc. has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Porsche Cars North America, Inc. delivered or arranged for delivery of Porsche cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

15. Venue is proper in this jurisdiction pursuant to Sections 204 and 205 of the Act, 42 U.S.C. §§ 7523 and 7524, because violations occurred in this judicial district and VWoA has a corporate office within this judicial district.

VW FOIA, EPA 06/20/2017 2017-FFP_037105

DEFENDANTS

16. Volkswagen AG is a publicly-held German corporation.

17. Volkswagen AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

18. Volkswagen AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

19. Volkswagen Group of America, Inc. is incorporated under the laws of the State of New Jersey, and is a wholly-owned subsidiary of Volkswagen AG.

20. Volkswagen Group of America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

21. Volkswagen Group of America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

22. Volkswagen Group of America Chattanooga Operations, LLC is incorporated under the laws of the State of Tennessee, and is a wholly-owned subsidiary of VWoA.

23. Volkswagen Group of America Chattanooga Operations, LLC is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

24. Volkswagen Group of America Chattanooga Operations, LLC is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

25. Audi AG is a German corporation, and is approximately 99.55% owned by Volkswagen AG.

26. Audi AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

VW FOIA, EPA 06/20/2017 2017-FFP_037106

27. Audi AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

28. Porsche AG is a German corporation, and is wholly-owned by Volkswagen AG.

29. Porsche AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

30. Porsche AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

31. Porsche Cars North America, Inc. is a Delaware corporation, and is a wholly-owned subsidiary of Porsche AG.

32. Porsche Cars North America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

33. Porsche Cars North America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

34. At all times relevant to this action, VW was engaged in the business of manufacturing new motor vehicles, and selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing (or causing the foregoing with respect to) these vehicles in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_037107

STATUTORY AND REGULATORY BACKGROUND

35. This action arises under Title II of the Act, as amended, 42 U.S.C. § 7521 *et seq.*, and the regulations promulgated thereunder, which aim to protect human health and the environment by reducing emissions of nitrogen oxides ("NOx") and other pollutants from mobile sources of air pollution, including new motor vehicles.

36. NOx is a family of highly reactive gases that play a major role in the atmospheric reactions with volatile organic compounds that produce ozone in the atmosphere. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Breathing ozone can also worsen bronchitis, emphysema, and asthma, and can lead to premature death. Children are at greatest risk of experiencing negative health impacts from exposure to ozone. Additionally, recent scientific studies indicate that the direct health effects of NOx are worse than previously understood, including respiratory problems, damage to lung tissue, and premature death.

37. Section 202(a) of the Act, 42 U.S.C. § 7521(a), requires EPA to promulgate emissions standards for new motor vehicles for NOx, and other air pollutants.

38. 40 C.F.R. Part 86 sets emission standards and test procedures for light-duty motor vehicles, including emission standards for NOx. *See* 40 C.F.R. § 86.1811-04.

A. Certificates of Conformity and Prohibition on Uncertified Motor Vehicles

39. Light-duty vehicles must satisfy emission standards for certain air pollutants. 40 C.F.R. §§ 86.1811-04, 86.1811-09, 86.1811-10. EPA administers a certification program to ensure that every new motor vehicle introduced into United States commerce satisfies applicable emission standards. 42 U.S.C. § 7521. Under this program, EPA issues COCs and thereby

VW FOIA, EPA 06/20/2017 2017-FFP_037108

regulates the introduction of new motor vehicles into United States commerce.

40. To obtain a COC, a manufacturer must submit an application to EPA for each model year and for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1843-01. A test group is comprised of vehicles with similar emissions profiles for pollutants regulated under the Act. *See, e.g.,* 40 C.F.R. §§ 86.1803-01, 86.1827-01.

41. Vehicles are covered by a COC only if the vehicles are as described in the manufacturer's application for the COC "in all material respects." 40 C.F.R. § 86.1848-10(c)(6).

42. EPA issues COCs "upon such terms . . . as [the Administrator] may prescribe." 42 U.S.C. § 7525(a)(1); *see also* 40 C.F.R. § 86.1848-01(b) (authorizing EPA to issue COCs on any terms that are necessary and appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

43. Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), prohibits manufacturers of new motor vehicles from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or any person from importing into the United States any new motor vehicle not covered by a COC issued by EPA under regulations prescribed by the Act governing vehicle emission standards. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

B. Prohibition on Defeat Devices and Tampering

44. Each COC application must include, among other things, a list of all auxiliary emission control devices ("AECDs") installed on the vehicles. 40 C.F.R. § 86.1844-01(d)(11).

45. An AECD is "any element of design which senses temperature, vehicle speed, engine [revolutions per minute], transmission gear, manifold vacuum, or any other parameter for

VW FOIA, EPA 06/20/2017 2017-FFP_037109

the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.1803-01.

46. An element of design is "any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine." 40 C.F.R. § 86.1803-01.

47. Each COC application must also include "a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device." 40 C.F.R. § 86.1844-01(d)(11).

48. A motor vehicle containing an AECD that can reasonably be expected to affect emission controls and is not disclosed or justified in the COC application does not conform in all material respects with the COC application, and is therefore not covered by the COC.

49. A "defeat device" is an AECD "that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . . . ." 40 C.F.R. § 86.1803-01.

50. Motor vehicles equipped with defeat devices cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86.1809-01, 86.1809-10, 86.1809-12.

51. Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." *See also* 40 C.F.R. § 86.1854-12(a)(3)(ii).

52. Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), prohibits any person from removing or rendering inoperative any device or element of design installed on a motor vehicle in compliance with the regulations promulgated under Title II of the Act prior to its sale and delivery to the ultimate purchaser.

53. It is also a violation to cause any of the acts set forth in Section 203(a)(3). 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

C. Reporting Requirements

54. Section 208(a) of the Act, 42 U.S.C. § 7542(a), requires that "[e]very manufacturer of new motor vehicles . . . establish and maintain records, perform tests . . . make reports, and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting in compliance" with Part A of Title II of the Act.

55. Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), prohibits any person from failing or refusing to make reports or provide information to EPA pursuant to Section 208 of the

VW FOIA, EPA 06/20/2017 2017-FFP_037111

Act, 42 U.S.C. § 7542. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

GENERAL ALLEGATIONS

56. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix A to this Complaint ("2.0L Subject Vehicles").

57. Each of the 2.0L Subject Vehicles is equipped with a 2.0 liter diesel engine, and is part of model years 2009-2015.

58. In total, approximately 500,000 2.0L Subject Vehicles were sold in the United States.

59. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for the 2.0L Subject Vehicles.

60. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix B to this Complaint ("3.0L Subject Vehicles").

61. Each of the 3.0L Subject Vehicles is equipped with a 3.0 liter diesel engine, and is part of model years 2009-2016.

62. In total, approximately 80,000 3.0L Subject Vehicles were sold in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_037112

63. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for certain 3.0L Subject Vehicles.

64. Porsche Cars North America, Inc. submitted to EPA, on behalf of itself, and representing Porsche AG, the applications for COCs for certain 3.0L Subject Vehicles.

65. Each COC issued by EPA during the time period relevant to this Complaint states on its face that the certificate covers only those new motor vehicles that conform, in all material respects, to the design specifications provided to EPA in the certificate application for such vehicle.

66. Each application for a COC constitutes a "report [and/or] information the Administrator may reasonably require . . ." to assess compliance with the Act, within the meaning of Section 208(a) of the Act, 42 U.S.C. § 7542(a).

A. The 2.0L Subject Vehicles

67. Each 2.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 2.0L Subject Vehicle.

68. The electronic control module ("ECM") of the 2.0L Subject Vehicles contains software logic and/or calibrations that sense when the vehicle is being tested for compliance with applicable emission standards, based on various inputs including the position of the steering wheel, vehicle speed, the duration of the engine's operation, and barometric pressure. These inputs precisely track the parameters of the federal test procedure ("FTP") and other test cycles used for emission testing required to obtain a COC.

VW FOIA, EPA 06/20/2017 2017-FFP_037113

69. During FTP emission testing, the 2.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration that VW has referred to as the "dyno calibration" (referring to the equipment used in emissions testing, called a dynamometer). At all other times during normal vehicle operation, the 2.0L Subject Vehicles' ECM software run a separate "road calibration" that reduces the effectiveness of the emission control system. In other words, the 2.0L Subject Vehicles' ECM software tracks the parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

70. The COC applications for the 2.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 2.0L Subject Vehicles' COC applications.

71. The 2.0L Subject Vehicles therefore are not covered by a COC.

72. This dual-calibration system results in increased NOx emissions by a factor of up to 40 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

73. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

74. VW entities including at least Volkswagen AG, VWoA and Audi AG knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

VW FOIA, EPA 06/20/2017 2017-FFP_037114

75. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

B. The 3.0L Subject Vehicles

76. Each 3.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 3.0L Subject Vehicles.

77. The ECM of the 3.0L Subject Vehicles contains software logic and/or calibrations that cause the vehicle to perform differently when the vehicle is being tested for compliance with applicable emission standards, based on various inputs that appear to track the FTP and/or other test cycles used for emission testing required to obtain a COC, than when the vehicle is in normal operation and use.

78. During FTP emission testing, the 3.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration referred to as the "temperature conditioning mode." At other times during normal vehicle operation, the 3.0L Subject Vehicles' ECM software run a separate "normal mode" that reduces the effectiveness of the emission control system. In other words, the 3.0L Subject Vehicles' ECM software tracks certain parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

79. The COC applications for the 3.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The

VW FOIA, EPA 06/20/2017 2017-FFP_037115

undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 3.0L Subject Vehicles' COC applications.

80. The 3.0L Subject Vehicles therefore are not covered by a COC.

81. This dual-calibration strategy results in increased NOx emissions by a factor of up to 9 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

82. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

83. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG and Porsche Cars North America, Inc. knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

84. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_037116

C. The Investigations and Concealment

85. In or about May 2014, West Virginia University's Center for Alternative Fuels, Engines & Emissions ("WVU") published results of a study commissioned by the International Council on Clean Transportation, and conducted in collaboration with the California Air Resources Board ("CARB"), that found on-road NOx emissions from two 2.0L VW light duty diesel vehicles (2012 Jetta and 2013 Passat) were significantly higher than the applicable emission standards established by EPA regulations.

86. Beginning in or about May 2014 through the present, CARB, in coordination with EPA, has investigated the reasons for the high in-use emissions, repeatedly questioning representatives from VWoA and Volkswagen AG about WVU's findings.

87. In or about October 2014, those VW entities responded that the increased emissions from the vehicles studied by WVU were attributable to various yet-to-be-identified technical issues with the after treatment emission control systems and in-use conditions not represented by the FTP.

88. VW entities including at least VWoA represented to regulators that the vehicles' software could be optimized to address the excess NOx emissions issue and issued a recall in December 2014 and March 2015 for 2.0L vehicles to address the excess emissions issue.

89. From approximately December 2014 through the present, CARB, in coordination with EPA, conducted its own testing to further investigate the reasons behind the high NOx emissions observed on VW's 2.0L light duty diesel vehicles during real world driving conditions, and to investigate the effectiveness of the recall action. This on-road and laboratory testing showed limited reduction in the rates of emission of NOx of the recalled vehicles, and also

VW FOIA, EPA 06/20/2017 2017-FFP_037117

revealed that the vehicles exhibited different behaviors during real world driving conditions than during FTP emission testing.

90. During the course of this investigation, VW entities including at least VWoA and Volkswagen AG suggested a number of potential technical issues and in-use conditions that might explain the higher emission test results, but none of those issues adequately explained why the 2.0L Subject Vehicles behaved differently while operating on the FTP test cycles versus while being driven on the road.

91. In or about September 2015, VW entities including at least VWoA and Volkswagen AG admitted that these 2.0L motor vehicles contained a defeat device in the form of a software algorithm or algorithms that detect when the vehicle is undergoing emission testing.

92. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 2.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least VWoA and Volkswagen AG.

93. VW entities including at least Volkswagen AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 2.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

94. On October 8, 2015, Mr. Michael Horn, VWoA President and Chief Executive Officer, testified before the United States House of Representatives Subcommittee on Oversight and Investigations Committee on Energy and Commerce, and admitted that VWoA and

VW FOIA, EPA 06/20/2017 2017-FFP_037118

Volkswagen AG's representations to EPA and CARB that the increased NOx emissions from the 2.0L Subject Vehicles were due to technical issues were false.

95. During his October 8, 2015 testimony, Mr. Horn further admitted that the installation of the "defeat device" in the 2.0L Subject Vehicles was a knowing and willful decision to deceive.

96. Even after EPA issued its September 18, 2015 Notice of Violation to Volkswagen AG, Audi AG, and VWoA, and Mr. Horn's testimony before Congress, VW failed to come forward and reveal to regulators that the 3.0L Subject Vehicles contain one or more undisclosed AECDs, including the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode." The existence of this dual calibration strategy was uncovered only as a result of EPA and CARB's diligence.

97. On November 2, 2015, EPA issued a Notice of Violation to Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc., citing violations of the Act related to the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode," and the resultant excess emissions in certain 3.0L light duty diesel vehicles.

98. VW entities including at least Volkswagen AG immediately issued a statement denying that software had been installed in 3.0L light duty diesel vehicles to alter emissions in a prohibited manner.

99. On or about November 23, 2015, VW entities including at least Volkswagen AG and Audi AG admitted that the 3.0L Subject Vehicles contain three undisclosed AECDs, one of which – the temperature conditioning mode – is regarded as a defeat device under the Act and implementing regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_037119

100. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 3.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least Volkswagen AG and Audi AG.

101. VW entities including at least Audi AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 3.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

FIRST CLAIM FOR RELIEF
(Section 203(a)(1): Sale, Offer for Sale, Introduction or Delivery for Introduction into Commerce, or Import of New Motor Vehicles Not Covered by COCs)

102. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

103. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 500,000 2.0L Subject Vehicles that were not covered by COCs (or caused any of the foregoing) because the 2.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 2.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 2.0L Subject Vehicles' emission controls.

104. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 80,000 3.0L Subject Vehicles that were not covered by COCs (or

VW FOIA, EPA 06/20/2017 2017-FFP_037120

caused any of the foregoing) because the 3.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 3.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 3.0L Subject Vehicles' emission controls.

105. VW violated Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), by selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing new motor vehicles that were not covered by a COC, or by causing any of the foregoing acts.

106. Each such violation of Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), is a separate offense with respect to each new motor vehicle.

107. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW is liable for injunctive relief and civil penalties of up to $32,500 per vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

SECOND CLAIM FOR RELIEF
(Section 203(a)(3)(B): Manufacture, Sale, Offer for Sale, or Installation of Defeat Device)

108. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

109. VW entities including at least Volkswagen AG, VWoA and Audi AG manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended for use with, or as part of, motor vehicles, including the road-calibration AECDs installed on the 2.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 2.0L

VW FOIA, EPA 06/20/2017 2017-FFP_037121

Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Volkswagen AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

110. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended or use with, or as part of, motor vehicles, including the normal mode calibration AECDs installed on the 3.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 3.0L Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Audi AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

111. VW entities including at least Volkswagen AG and Audi AG violated Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), by manufacturing, selling, offering for sale, or installing "defeat devices" on new motor vehicles, or by causing any of the foregoing acts.

112. Each part or component that constitutes a "defeat device" manufactured, sold, offered for sale, or installed on new motor vehicles (or the causing thereof) is a separate violation of Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B).

113. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG and Audi AG are liable for injunctive relief and civil penalties of up to $2,750 per part or component that constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $3,750 per part or component that

VW FOIA, EPA 06/20/2017 2017-FFP_037122

constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

THIRD CLAIM FOR RELIEF
(Section 203(a)(3)(A): Tampering)

114. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

115. The road-calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

116. The normal mode calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

117. VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the road-calibration AECDs in the 2.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

118. VW entities including at least Volkswagen AG, Audi AG and Porsche AG violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the normal mode calibration AECDs in the 3.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

VW FOIA, EPA 06/20/2017 2017-FFP_037123

119. Each 2.0L Subject Vehicle equipped with the road-calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

120. Each 3.0L Subject Vehicle equipped with the normal mode calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and Porsche AG of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

121. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG and Porsche AG are liable for injunctive relief and civil penalties of up to $32,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

FOURTH CLAIM FOR RELIEF
(Section 203(a)(2): Reporting Violations)

122. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

123. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to disclose the existence of the road-calibration and/or other AECDs in the COC applications for the 2.0L Subject Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

124. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to disclose the existence of the normal mode calibration and/or other AECDs in the COC applications for the 3.0L Subject

VW FOIA, EPA 06/20/2017 2017-FFP_037124

Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

125. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to provide a justification for the road-calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the road-calibration and/or other AECDs are not a defeat device, in the COC applications for the 2.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

126. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to provide a justification for the normal mode calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the normal mode calibration and/or other AECDs are not a defeat device, in the COC applications for the 3.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

127. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to disclose one or more AECDs in a COC application for a test group of new motor vehicles.

128. VW entities including at least Volkswagen AG, Audi AG and VWoA violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 2.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

VW FOIA, EPA 06/20/2017 2017-FFP_037125

129. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 3.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

130. Each failure to provide reports or information described above is a separate violation of Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2).

131. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. are liable for injunctive relief and civil penalties of up to $32,500 per day of violation of Section 203(a)(2) occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per day of violation for such violations occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff, the United States of America, respectfully requests that the Court provide the following relief:

a. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle not covered by a COC issued by EPA in accordance with the Act and the regulations promulgated thereunder.

b. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the

VW FOIA, EPA 06/20/2017 2017-FFP_037126

foregoing acts) any new motor vehicle equipped with an AECD, except in compliance with the Act and the regulations promulgated thereunder.

c. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle equipped with a defeat device.

d. Permanently enjoin VW from bypassing, defeating, or rendering inoperative any device or element of design installed on or in a new motor vehicle in compliance with regulations promulgated under Title II of the Act.

e. Order VW to take appropriate steps, including, but not limited to, mitigation of excess NOx emissions, to remedy the violations of Sections 203(a)(1), 203(a)(3)(A), and 203(a)(3)(B) alleged above.

f. Enter a judgment that VW is liable to the United States for civil penalties for each violation of Section 203(a) of the Act, and assess civil penalties against VW as follows:

i. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(1) of the Act;

ii. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(A) of the Act;

VW FOIA, EPA 06/20/2017 2017-FFP_037127

iii. up to $2,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $3,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(B) of the Act; and

iv. up to $32,500 per day of violation occurring before January 13, 2009, and up to $37,500 per day of violation occurring on or after January 13, 2009 for violations of Section 203(a)(2) of the Act.

g. Award the United States its costs in this action; and

h. Grant such other and further relief as the Court deems just and proper.

VW FOIA, EPA 06/20/2017 2017-FFP_037128

Respectfully submitted,

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VW FOIA, EPA 06/20/2017 2017-FFP_037129

United States v. Volkswagen AG, et al.

APPENDIX A TO COMPLAINT

Identification of the 2.0L Subject Vehicles

Model Year	EPA Test Group	Vehicle Make and Model(s)
2009	9VWXV02.035N	VW Jetta, VW Jetta Sportwagen
2009	9VWXV02.0U5N	VW Jetta, VW Jetta Sportwagen
2010	AVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2011	BVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U4S	VW Passat
2013	DVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2013	DVWXV02.0U4S	VW Passat
2014	EVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2014	EVWXV02.0U4S	VW Passat
2015	FVGAV02.0VAL	VW Beetle, VW Beetle Convertible, VW Golf, VW Golf Sportwagen, VW Jetta, VW Passat, Audi A3

United States v. Volkswagen AG, et al.

APPENDIX B TO COMPLAINT

Identification of the 3.0L Subject Vehicles

Model Year	EPA Test Group(s)	Vehicle Make and Model(s)
2009	9ADXT03.03LD	VW Touareg, Audi Q7
2010	AADXT03.03LD	VW Touareg, Audi Q7
2011	BADXT03.02UG BADXT03.03UG	VW Touareg Audi Q7
2012	CADXT03.02UG CADXT03.03UG	VW Touareg Audi Q7
2013	DADXT03.02UG DADXT03.03UG DPRXT03.0CDD	VW Touareg Audi Q7 Cayenne Diesel
2014	EADXT03.02UG EADXT03.03UG EPRXT03.0CDD EADXJ03.04UG	VW Touareg Audi Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2015	FVGAT03.0NU2 FVGAT03.0NU3 FPRXT03.0CDD FVGAJ03.0NU4	VW Touareg Audi: Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2016	GVGAT03.0NU2 GPRXT03.0CDD GVGAJ03.0NU4	VW Touareg Cayenne Diesel A6 quattro, A7 quattro,A8, A8L, Q5

To: Hennard, Mike (EEO)[mike.hennard@vw.com]
Cc: Snyder, Jim[Snyder.Jim@epa.gov]
From: Ball, Joel
Sent: Tue 1/5/2016 6:30:03 PM
Subject: Diesel Nox sensor controller warranty

Hello Mike,

It has come to my attention that some VW dealerships are not honoring the 8 year 80,000 mile warranty for the NOx sensor control unit. It is my understanding that the control unit is typically sold as a package with the sensor itself. If the ECU and the sensor are not designed to be serviced separately, then they should both be covered for 8 years or 80,000 miles.

Are these components listed in the warranty booklet as being covered for 8 years or 80,000 miles? Please provide a copy of the 2013 MY Passat TDI warty booklet as an example.

Joel Ball
Light-Duty Vehicle Group
Compliance Division
United States Environmental Protection Agency
(734) 214-4238
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1 of 1 DOCUMENT

INDEPENDENT EQUIPMENT DEALERS ASSOCIATION, PETITIONER v. ENVIRONMENTAL PROTECTION AGENCY, RESPONDENT ENGINE MANUFACTURERS ASSOCIATION, INTERVENOR

No. 03-1020

UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

372 F.3d 420*; *362 U.S. App. D.C. 53*; *2004 U.S. App. LEXIS 12849*; *58 ERC (BNA) 1769*; *34 ELR 20036

February 10, 2004, Argued
June 25, 2004, Decided

PRIOR HISTORY: [***1] On Petition for Review of an Order of the Environmental Protection Agency.

DISPOSITION: The petition for review is dismissed for lack of jurisdiction.

COUNSEL: William R. Weissman argued the cause for petitioner. On the briefs were LeAnn M. Johnson-Koch and James P. Rathvon.

Laurel A. Bedig, Attorney, U.S. Department of Justice, argued the cause for respondent. With her on the brief was Michael J. Horowitz, Attorney, U.S. Environmental Protection Agency.

Jed R. Mandel and Timothy A. French were on the brief for intervenor.

JUDGES: Before: ROGERS, GARLAND, and ROBERTS, Circuit Judges. Opinion for the Court filed by Circuit Judge ROBERTS.

OPINION BY: Roberts

OPINION

[**54] [*421] ROBERTS, *Circuit Judge*: Petitioner Independent Equipment Dealers Association (IEDA) is a trade association of independent dealers of heavy construction and industrial equipment, such as cranes, large forklifts, and generators. IEDA dealers are "independent" in the sense that they are not affiliated with any manufacturer. In December 2002, IEDA wrote to EPA seeking EPA's concurrence in its interpretation of emissions regulations pertaining to "nonroad engines" -- engines used in such heavy construction and industrial equipment. *See generally* [***2] 40 C.F.R. pt. 89. Four weeks later, EPA replied that it did not concur in IEDA's proffered interpretation. IEDA then filed this petition for review claiming that EPA, by its letter, had substantively amended its regulations concerning nonroad engines, and in so doing had failed to comply with the notice-and-comment requirements of Section 307(d) of the Clean Air Act, *42 U.S.C. § 7607(d)(3)*. IEDA alternatively contends that EPA's letter violated the Clean Air Act's prohibition on agency action that is arbitrary or capricious. [**55] [*422] *See id. § 7607(d)(9)(A)*. We conclude that we lack jurisdiction and accordingly dismiss the petition for review.

I.

Since 1996, EPA has regulated nonroad engines by requiring their manufacturers to obtain a "certificate of conformity" indicating compliance with EPA emissions standards before selling such engines or importing them into the United States. *40 C.F.R. §§ 89.105, 89.1003(a)(1)*; *see also 42 U.S.C. § 7547(a)* (authorizing regulation of nonroad engines); *id. § 7522(a)(1)* (prohibiting the sale, distribution, or importation of any uncertified new motor vehicle engine). [***3] Manufacturers are not required to obtain certificates of conformity for each individual engine or engine model, but rather for each "engine family." *40 C.F.R. § 89.105*. EPA defines an engine family as a group of engines

"expected to have similar emission characteristics throughout their useful life periods" -- a categorization based on the design and emissions characteristics of the engines. *Id. § 89.116*. The application for the certificate of conformity must include "an unconditional statement certifying that all engines in the engine family comply with all requirements of this part [40 C.F.R. pt. 89] and the Clean Air Act." *Id. § 89.115(d)(10)*. Those requirements include not only the emissions specifications, but also recall liability, *see id. § 89.701 et seq.*, emissions defect reporting requirements, *see id. § 89.801 et seq.*, and warranty obligations, *see id. § 89.1007*. Manufacturers are also subject to "selective enforcement auditing" -- emissions testing at the assembly line or, for engines manufactured abroad, at the point of importation. *See id. § 89.503*.

In furtherance of this regulatory regime, EPA also requires [***4] manufacturers to affix to each new engine an "emission control information label" that identifies the engine and states that it conforms to all EPA emissions standards and regulations. *Id. § 89.110, (b)(10)*; *see also id. § 89.1003(a)(4)(ii)* (prohibiting sale or delivery of engine without emission control label affixed). On a practical level, this engine label demonstrates to dealers, purchasers, and enforcement inspectors that the engine is covered by an EPA certificate of conformity. Unlabeled engines are presumed to be uncertified. *See* OFFICE OF REGULATORY ENFORCEMENT, U.S. ENVTL. PROT. AGENCY, ENFORCEMENT ALERT: EPA STEPS UP ENFORCEMENT OF DIESEL, GASOLINE NONROAD ENGINE IMPORTS (Vol. 3, No. 2, Feb. 2000) (Enforcement Alert).

Many nonroad engines are manufactured outside the United States. Engines covered by a certificate of conformity may be imported into the United States subject only to ordinary customs regulations. Engines not covered by a manufacturer's certificate of conformity may only be imported if they comply with EPA's Independent Commercial Importers (ICI) program. *40 C.F.R. § 89.601 et seq.* The chief burden associated with [***5] the ICI program is that after the importer has obtained a certificate of conformity for the engine family, the importer still must test one of every three imported engines for compliance with Part 89 emissions regulations. According to EPA, each test costs between $ 15,000 and $ 30,000, depending on the engine. EPA Br. 9. Additionally, since it is the importer, not the manufacturer, who obtains a certificate of conformity for the engines, all other Part 89 requirements -- labeling, recall and warranty, etc. -- run to the importer rather than the manufacturer. *See 40 C.F.R. § 89.610*. The ICI importer thus steps into the shoes of the manufacturer, assuming all the obligations that would ordinarily fall upon the manufacturer.

The market for nonroad engines in the United States is segmented between original [**56] [*423] engine manufacturers (OEMs), who sell the equipment they manufacture through networks of authorized dealers, and independent equipment dealers, who are not affiliated with an OEM. Independent dealers make their way in the market by re-selling equipment, frequently at lower prices than the OEMs. The collapse of the Asia-Pacific Rim economy in the late 1990s [***6] offered a unique opportunity to enterprising independent equipment dealers. In the deeply distressed Asian construction market, equipment distributors found themselves with bloated inventories and few prospects of selling that equipment locally. Sensing an arbitrage opportunity, some U.S. independent dealers bought equipment at depressed prices in Asia, and then imported the equipment into the United States. Of course, the Asian equipment could be legally imported only if it were covered by a manufacturer's certificate of conformity or had been taken through the costly and time-consuming ICI process. Few independent dealers availed themselves of the ICI program; the lack of significant EPA enforcement of Part 89 regulations made importation of uncertified equipment a much more lucrative path.

The importation of low-priced Asian equipment -- EPA-certified and otherwise -- by independent dealers into the United States market had the predictable effect of undermining the pricing power of the OEMs in the United States. OEMs have a difficult time selling a machine for $ 50,000 when an independent dealer is selling the identical machine for $ 35,000, having purchased it in Korea for $ 20,000.

[***7] The OEMs appealed to EPA for increased enforcement of Part 89 regulatory requirements. In November 1998, EPA and the Associated Equipment Distributors, a trade association of authorized dealers, hosted a workshop to explain the Part 89 requirements as they pertained to imported engines. At the workshop, EPA vowed to enforce the regulations, and the Customs Service explained that it would impound any engine lacking an EPA emissions control information label. *See* Christian A. Klein, *GRAY MARKET CRACKDOWN: EPA & CUSTOMS LAY DOWN THE LAW*, CONSTR. EQUIP. DISTRIBUTION, Jan. 1999.

EPA followed up in February 2000 with an Enforcement Alert announcing its intention to increase enforcement of certificate of conformity and emission control information label requirements with regard to imported nonroad engines. *See* Enforcement Alert. In that document, EPA emphasized that all engines

imported into the U.S. must be covered by a certificate of conformity and must bear an EPA-compliant emissions control information label. *Id.* at 1. In a "Fact and Fiction" segment, EPA also cautioned that many engines obtained overseas were not eligible for importation:

> *Fiction: An uncertified* [***8] *engine having similar or even identical emission characteristics as a certified engine should be able to be imported.*
>
> Fact: Manufacturers may produce engines that are identical to U.S. certified versions but the engines are not intended for the U.S. market. These engines are not certified and may not be imported unless they are produced under an EPA-issued certificate, [and] are properly labeled....

Id. at 3.

EPA soon reiterated this position in response to an inquiry from authorized dealers. OEMs asked whether manufacturers could adopt a program of destination-specific labeling of engines, thereby indicating which engines are and which are not covered by a certificate of conformity. EPA responded that "the manufacturer is not only allowed to place a destination-specific label on a non-certified engine intended for [*424] [**57] sale elsewhere than the United States, but also is encouraged to do this." *See* Letter from Robert M. Doyle, EPA Attorney-Advisor, Certification and Compliance Division, Office of Transportation and Air Quality, to Julie R. Domike, Esq. 1 (Nov. 21, 2000). EPA explained that

> the key distinction for imported engines...is whether the manufacturer [***9] intended the engine to be covered by a certificate or not to be covered by a certificate....
>
> In your scenario, the manufacturer has chosen, for whatever reason, to not include under certificate coverage the engines intended for sale elsewhere than the U.S., and so it will not place the EPA required emission label on the engines. This step is correct.

Id. at 2.

EPA was even more explicit in its 2001 response to an inquiry from an engine manufacturer. There EPA wrote, "manufacturers also may choose...to produce engines which will not be covered by an EPA certificate, because they will be sold elsewhere than the U.S.," even though "these non-certified engines may be physically identical to engines which the manufacturer chooses to be covered by an EPA certificate." Letter from John Guy, EPA Manager, Engine Programs Group, Certification and Compliance Division, to Jonathan S. Martel, Esq. 1 (July 6, 2001).

The OEMs then -- with EPA's blessing -- took the position that only those engines they intended to import into the United States were covered by EPA certificates of conformity, and began affixing EPA emissions control labels only to those engines. This had the desired [***10] effect; independent dealers seeking access to the United States market were left only with the much less attractive option of importing uncertified machines through the ICI process, even though many of those engines -- according to IEDA -- were identical in all respects to engines to which OEMs had affixed labels.

IEDA believes this destination-specific labeling program violates EPA's Part 89 regulations. IEDA wrote to EPA to raise the question of whether "engines that are 'identical' to an EPA certified version can be designated 'uncertified' by the engine manufacturer under the regulations at 40 C.F.R. Part 89." Letter of LeAnn M. Johnson-Koch to Christine Todd-Whitman, EPA Administrator 1 (Dec. 23, 2002) (IEDA Letter). IEDA stated its view that because certificates of conformity apply to "engine families and not to individual engines," and because "the engine family is defined by its physical characteristics," "all engines that have the same physical characteristics...are covered by the certificate of conformity issued to the engine family." *Id.* IEDA sought EPA's concurrence in this conclusion and also IEDA's view that all manufacturers' Part 89 obligations, including warranty, [***11] recall, and defect reporting requirements, and, crucially, the emissions control information label requirement, apply to all such covered engines. *Id.* at 2.

EPA responded that it did not concur in IEDA's interpretation of the Part 89 regulations. *See* Letter from Margo Tsirigotis Oge, EPA Director, Office of Transportation and Air Quality, to LeAnn M. Johnson-Koch, Esq. 1 (Jan. 21, 2003) (EPA Letter). EPA stated that "neither the Clean Air Act nor our regulations impose [Part 89] requirements on engines that the manufacturer did not introduce or intend for introduction into U.S. commerce." *Id.* It explained that the "requirement to divide a 'manufacturer's product line' into engine families in *40 CFR 89.116* refers to that portion of the product line intended for sale in the U.S." *Id.* at 2. Thus, contrary to IEDA's interpretation, a

manufacturer was empowered to "identify [*425] [**58] which of its engines are covered by its certificate of conformity and which are not." *Id.* This identification was typically accomplished, said EPA, through the affixing (or not) of the emissions control information label. *Id.*

Unsatisfied with that response, IEDA filed [***12] the instant petition for review.

II.

IEDA contends that the EPA Letter adds a manufacturer "intent" element to the definition of an "engine family," and thus substantively amends the Part 89 regulations -- specifically *40 C.F.R. § 89.116* -- without satisfying the notice-and-comment requirements of the Clean Air Act. *See 42 U.S.C. § 7607(d)(3)*. Alternatively, IEDA claims that the EPA Letter violates the Act's prohibition on regulation that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." *Id. § 7607(d)(9)(A)*.

We recently confronted a factually similar case in *GMC v. EPA, 361 U.S. App. D.C. 6, 363 F.3d 442 (D.C. Cir. 2004)*. There, General Motors petitioned for review of a letter from an EPA enforcement official containing a regulatory interpretation that certain automobile manufacturing solvents were "solid waste" under the Resource Conservation and Recovery Act (RCRA), *42 U.S.C. § 6901 et seq*. General Motors sought review under RCRA's judicial review provision, *42 U.S.C. § 6976(a)*, alleging the agency letter unlawfully [***13] promulgated a final regulation without satisfying the notice-and-comment requirements of the Administrative Procedure Act, *5 U.S.C. § 553*. We found that the letter in question "reflected neither a new interpretation nor a new policy," but rather reiterated an interpretation that had been stated as early as 1997, and repeated without change on several occasions since. *GMC, 363 F.3d at 449*. We thus concluded that EPA's letter did not amount to a final regulation. As our jurisdiction under RCRA is limited to the review of "final regulations, requirements, and denials of petitions to promulgate, amend or repeal a regulation," *id. at 448* (quoting *Molycorp, Inc. v. EPA, 339 U.S. App. D.C. 73, 197 F.3d 543, 545 (D.C. Cir. 1999))* (internal quotation marks omitted); *see also 42 U.S.C. § 6976(a)*, we dismissed General Motors' petition for lack of jurisdiction.

This holding would seem to raise a serious impediment to IEDA's substantive claims for relief. Here, we are presented with a virtually identical notice-and-comment challenge to an EPA letter, this time under the Clean Air Act. [***14] *See 42 U.S.C. § 7607(d)(3)*. The notice-and-comment obligations under that Act apply, however, only if the EPA Letter constitutes a "promulgation or revision of any regulation pertaining to nonroad engines," *id. § 7607(d)(1)(R)*. *See, e.g., American Forest & Paper Ass'n v. EPA, 352 U.S. App. D.C. 315, 294 F.3d 113, 116 n.3 (D.C. Cir. 2002)*; *Western Oil & Gas Ass'n v. EPA, 633 F.2d 803, 812 (9th Cir. 1980)* ("*Section 7607(d)* meticulously enumerates a list of actions to which its substantive provisions apply and expressly abrogates the review provisions of the APA only with respect to those actions."). As demonstrated above, the so-called intent requirement reflected in EPA's letter to IEDA is hardly new. EPA had publicly announced its interpretation of the certificate of conformity requirement no later than February 2000, when it labeled as "*Fiction*" the position IEDA presses before us now -- that "*an uncertified engine having similar or even identical emission characteristics as a certified engine should be able to be imported.*" Enforcement Alert at 3. The "Fact," according to EPA, was that "manufacturers may produce [***15] engines that are identical to U.S. certified versions but the engines are not intended for the U.S. market. These engines are not certified...." *Id.* Nearly [**59] [*426] three years later, EPA's letter to IEDA stated only that "[a] manufacturer...can properly identify which of its engines are covered by its certificate of conformity and which are not." EPA Letter at 2. The EPA Letter thus reflects no change in the position announced in the Enforcement Alert.

Just as in *General Motors*, because the January 2003 EPA Letter does not reflect any change in EPA's Part 89 regulations or its interpretation of those regulations, it is difficult to see how that letter "promulgated or revised ... any regulation pertaining to nonroad engines." *42 U.S.C. § 7607(d)(1)(R)*; *see also Natural Res. Def. Council v. EPA, 284 U.S. App. D.C. 136, 902 F.2d 962, 982 (D.C. Cir. 1990)* (separate opinion of Wald, J.) ("The word 'promulgate' in the CAA refers only to the original issuance of a standard, while the word 'revision' refers to subsequent modifications of that standard."), *vacated on other grounds, 287 U.S. App. D.C. 286, 921 F.2d 326 (D.C. Cir. 1991)*. Unlike the situation [***16] in *General Motors*, though, this conclusion would go to the *merits* of IEDA's claims for relief; it would not be dispositive of our *jurisdiction*. In contrast to RCRA -- where jurisdiction is limited to "final *regulations*," *42 U.S.C. § 6976(a)* (emphasis added) -- we have jurisdiction under the Clean Air Act to review "any ... nationally applicable regulations promulgated, or final *action* taken, by the Administrator." *Id. § 7607(b)* (emphasis added).

Both EPA and Intervenor-Respondent Engine Manufacturers Association have raised numerous challenges to our jurisdiction over IEDA's petition for review, among them that the EPA Letter does not

constitute "final action" within the meaning of the judicial review provision of the Act, *id. § 7607(b)*. *See* EPA Br. 16-26; EMA Br. 8-10. As we are a court of limited jurisdiction, we are obliged to consider these jurisdictional objections before addressing the merits of IEDA's substantive claims. *See Steel Co. v. Citizens for a Better Env't, 523 U.S. 83, 94-102, 140 L. Ed. 2d 210, 118 S. Ct. 1003 (1998)*.

At the outset, we observe that EPA's claim that its letter does not constitute "final action" [***17] seems somewhat inartful in view of its concurrent insistence that the interpretation of the certificate of conformity regulations contained therein *is* final and not subject to change. *See* Recording of Oral Arg. of Laurel A. Bedig, Counsel for EPA, at 15:22 (Question: "You're not ever going to change your view about this, at least in the near term. Right? This is your view. This is your view of what the regulation has always been -- what it was at the time of the Alert, and what it was at the time of the Letter? Right?" Answer: "Correct." Question: "So the agency's view is not in process here?" Answer: "Absolutely not."); *id.* at 17:55 (Question: "This is not going to change. The view is not going to change. It's not tentative. You say that it's not the culmination of an agency process but that's just because that process culminated long ago." Answer: "That's right.").

This line of argument becomes more understandable when one considers the dual requirements for "final agency action": (1) that the action be final -- *i.e.*, not tentative or interlocutory; and (2) that the action be one from which "rights or obligations have been determined" or from which "legal consequences [***18] will flow." *Bennett v. Spear, 520 U.S. 154, 177-78, 137 L. Ed. 2d 281, 117 S. Ct. 1154 (1997)* (internal quotation omitted). The Government's brief makes clear that its underlying objection is not so much to the first element -- concerning finality -- as it is to the second -- concerning the types of agency action suitable for review. EPA's brief does not assert that its interpretation is tentative or interlocutory; it does, however, [**60] [*427] forcefully argue that the EPA Letter is legally insignificant. *See*, *e.g.*, EPA Br. 18 (EPA Letter "does not relate to a specific enforcement action or case pending before the Agency, does not contain *any* mandatory language or directives, and does not describe [itself] as guidance or announce that [it] contains new interpretations of the regulations"); *id.* at 21 ("The EPA Letter lacks any indicia of a reviewable agency action. The letter does not purport to impose new obligations on IEDA.... No legal consequences flow from it, and it inflicts no injury on IEDA or its members."). So rather than ask -- awkwardly -- whether an interpretation the parties agree is not subject to change is *final*, we instead frame our inquiry as whether the [***19] EPA Letter setting out that interpretation constitutes reviewable agency action.

In answering that question, we start with the acknowledgment that the term "agency action" undoubtedly has a broad sweep. *See*, *e.g.*, *FTC v. Standard Oil Co. of California, 449 U.S. 232, 238 n.7, 66 L. Ed. 2d 416, 101 S. Ct. 488 (1980)*; *Whitman v. American Trucking Ass'ns, 531 U.S. 457, 478, 149 L. Ed. 2d 1, 121 S. Ct. 903 (2001)*. But we also have long recognized that the term is not so all-encompassing as to authorize us to exercise "judicial review [over] everything done by an administrative agency." *Hearst Radio, Inc. v. FCC, 83 U.S. App. D.C. 63, 167 F.2d 225, 227 (D.C. Cir. 1948)*. Here, common sense, basic precepts of administrative law, and the Administrative Procedure Act itself all point to the conclusion that the EPA Letter to IEDA is not reviewable agency action.

The answer seems obvious once we examine the concrete impact the EPA Letter had on IEDA and its members -- in short, none whatsoever. As discussed above, the EPA Letter merely restated in an abstract setting -- for the umteenth time -- EPA's longstanding interpretation of the Part 89 certificate of conformity [***20] regulations. The Letter neither announced a new interpretation of the regulations nor effected a change in the regulations themselves. The Letter was purely informational in nature; it imposed no obligations and denied no relief. Compelling no one to do anything, the letter had no binding effect whatsoever -- not on the agency and not on the regulated community. It was, as EPA describes it, "the type of workaday advice letter that agencies prepare countless times per year in dealing with the regulated community." EPA Br. 18. At oral argument, counsel for IEDA appeared to concede that such a letter, unless it wrought a regulatory change, would be an insufficient basis for jurisdiction. *See* Recording of Oral Arg. of William R. Weissman, Counsel for IEDA, at 13:45 (Question: "And ... if we thought that there was no change in the rule?" Answer: "Well, if there was no change, then presumably we should have appealed in '94. I don't quarrel with that.").

That concession is in accordance with our prior decisions. We have held that we lacked authority to review claims where "an agency merely expresses its view of what the law requires of a party, even if that view is adverse to the party. [***21] " *AT&T v. EEOC, 348 U.S. App. D.C. 149, 270 F.3d 973, 975 (D.C. Cir. 2001)*; *see also DRG Funding Corp. v. HUD, 316 U.S. App. D.C. 159, 76 F.3d 1212, 1214 (D.C. Cir. 1996)* (holding unreviewable an agency order that "does not itself adversely affect complainant but only affects his rights adversely on the contingency of future

administrative action" (internal quotation omitted)). Similarly, we have held often enough that when an "agency has not yet made any determination or issued any order imposing any obligation..., denying any right..., or fixing any legal relationship," the agency action was not reviewable. *Reliable Automatic Sprinkler Co. v. CPSC, 355 U.S. App. D.C. 346, 324 F.3d 726, 732* [**61] [*428] *(D.C. Cir. 2003)* (citing *Role Models Am., Inc. v. White, 354 U.S. App. D.C. 425, 317 F.3d 327, 331-32 (D.C. Cir. 2003))*; *see also id.* (agency action not reviewable when "no legal consequences flow from the agency's conduct" and "there has been no order compelling [the regulated entity] to do anything"). "Practical consequences," such as the threat of "having to defend itself in an administrative hearing should the agency actually [***22] decide to pursue enforcement," are insufficient to bring an agency's conduct under our purview. *Id.*

Moreover, our "reopening doctrine" specifically spells out the circumstances when an agency's discussion of its existing regulations *can* ripen into an "opportunity for renewed comment and objection" to those regulations. *Ohio v. EPA, 267 U.S. App. D.C. 375, 838 F.2d 1325, 1328 (D.C. Cir. 1988)*. Implicit in the very concept of a reopening doctrine is the notion that regulations and interpretations that have not been reopened by agency action remain at repose and are not newly reviewable. This, of course, makes good sense. Just as it would be folly to allow parties to challenge a regulation anew each year upon the annual re-publication of the Code of Federal Regulations, so too it is silly to permit parties to challenge an established regulatory interpretation each time it is repeated. Such a regime would quickly muzzle any informal communications between agencies and their regulated communities -- communications that are vital to the smooth operation of both government and business.

Finally, the conclusion that the EPA Letter is not reviewable agency action [***23] draws support from the text of the Administrative Procedure Act. While this case is brought only under the Clean Air Act -- IEDA raised no alternative APA arguments in its petition for review -- the term "final action" is synonymous with the term "final agency action" as used in *Section 704 of the APA*. *See American Trucking Assn's, 531 U.S. at 478*. Under the APA, "agency action" is a defined term, limited to an "agency rule, order, license, sanction, relief, or the equivalent or denial thereof, or failure to act." *5 U.S.C. § 551(13)*. Of all these types of agency action, IEDA has alleged only that the EPA Letter constitutes a "rule." *See* Pet. Br. 19-20 (arguing EPA Letter revised the Part 89 regulations pertaining to nonroad engines by promulgating an "Intent Rule"). Leaving nothing to chance, the APA also defines a "rule" as "an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy...." *5 U.S.C. § 551(4)*. Although the EPA Letter is certainly a statement of "general or particular applicability" -- what isn't? -- and is arguably of "future [***24] effect" insofar as it may inform the future conduct of IEDA's members, the EPA Letter certainly does not "implement, interpret, or prescribe law or policy." By *restating* EPA's established interpretation of the certificate of conformity regulation, the EPA Letter tread no new ground. It left the world just as it found it, and thus cannot be fairly described as implementing, interpreting, or prescribing law or policy. *Cf. Industrial Safety Equip. Ass'n v. EPA, 267 U.S. App. D.C. 112, 837 F.2d 1115, 1120-21 (D.C. Cir. 1988)* (agency statements that did not "change any law or official policy presently in effect" did not constitute a "rule" under the APA).

Our conclusion that the EPA Letter is not reviewable agency action means that we lack jurisdiction to consider the merits of IEDA's substantive claims under the Act. *See 42 U.S.C. § 7607(b)*. This conclusion obviates the necessity of considering the Government's and the Intervenor's other jurisdictional arguments. *See Fourth Branch Assocs. (Mechanicville) v. FERC, 347 U.S. App. D.C. 28, 253 F.3d 741, 745 (D.C. Cir. 2001)* [*429] [**62] ("we have no trouble dismissing a claim based on one jurisdictional bar rather [***25] than another") (internal quotation omitted).

The petition for review is dismissed for lack of jurisdiction.

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No. 14-748

In the Supreme Court of the United States

VOLVO POWERTRAIN CORPORATION, PETITIONER

v.

UNITED STATES OF AMERICA, ET AL.

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

BRIEF FOR THE UNITED STATES IN OPPOSITION

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QUESTION PRESENTED

Whether the court of appeals correctly held that a foreign company violated a consent decree entered in litigation under the Clean Air Act when its facilities were used to produce nonroad diesel engines (1) that did not comply with the emissions requirements set forth in the decree; and (2) for which certificates of conformity, allowing the engines to be imported into the United States, were voluntarily sought from the Environmental Protection Agency.

VW FOIA, EPA 06/20/2017 2017-FFP_037141

TABLE OF CONTENTS

Page

Opinions below 1
Jurisdiction 1
Statement 1
Argument 11
Conclusion 26

TABLE OF AUTHORITIES

Cases:

Biodiversity Assocs. v. *Cables*, 357 F.3d 1152 (10th Cir.), cert. denied, 543 U.S. 817 (2004) 25
Confiscation Cases, 74 U.S. (7 Wall.) 454 (1869) 15
EEOC v. *Arabian Am. Oil Co.*, 499 U.S.. 244 (1991) 18
Executive Bus. Media, Inc. v. *U.S. Dep't of Def.*, 3 F.3d 759 (4th Cir. 1993) 16
Frew v. *Hawkins*, 540 U.S. 431 (2004) 23
Independent Equip. Dealers Ass'n v. *EPA*, 372 F.3d 420 (D.C. Cir. 2004) 4, 19, 21
Kiobel v. *Royal Dutch Petroleum Co.*, 133 S. Ct. 1659 (2013) 19
Local No. 93, Int'l Ass'n of Firefighters v. *City of Cleveland*, 478 U.S. 501 (1986) 14, 23
Pacific R.R. v. *Ketchum*, 101 U.S. 289 (1880) 14, 15
Paralyzed Veterans of Am., Inc. v. *Washington Metro. Area Transit Auth.*, 894 F.2d 458 (D.C. Cir. 1990) 25
Rufo v. *Inmates of Suffolk Cnty. Jail*, 502 U.S. 367 (1992) 15
Sierra Club v. *Meiburg*, 296 F.3d 1021 (11th Cir. 2002) 25
Swift & Co. v. *United States*, 276 U.S. 311 (1928) 14, 15

VW FOIA, EPA 06/20/2017 2017-FFP_037142

Cases—Continued: Page

United States v. *Armour & Co.*, 402 U.S. 673 (1971) 22, 24
United States v. *Carpenter*, 526 F.3d 1237 (9th Cir. 2008), cert. denied, 556 U.S. 1147 (2009) 16
United States v. *Caterpillar, Inc.*, 227 F. Supp. 2d 73 (D.D.C. 2002) 5
United States v. *Chrysler Corp.*, 591 F.2d 958 (D.C. Cir. 1979) 4, 20
United States v. *Hercules, Inc.*, 961 F.2d 796 (8th Cir. 1992) 15
United States v. *ITT Cont'l Baking Co.*, 420 U.S. 223 (1975) 24, 25
United States v. *Newport News Shipbuilding & Dry Dock Co.*, 571 F.2d 1283 (4th Cir.), cert. denied, 439 U.S. 875 (1978) 15

Statutes and regulations:

Clayton Act, 15 U.S.C. 12 *et seq.* 25
Clean Air Act, 42 U.S.C. 7401 *et seq.* 2
42 U.S.C. 7413(g) 2
Tit. II 2, 3, 5
42 U.S.C. 7521 *et seq.* 2
42 U.S.C. 7521(a)(1) 2, 3
42 U.S.C. 7521(a)(3)(A)(i) 2
42 U.S.C. 7521(a)(3)(B)(i) 2
42 U.S.C. 7521(b)(3)(C) 2
42 U.S.C. 7522(a)(1) 4, 5, 6, 14
42 U.S.C. 7522(a)(2) 21
42 U.S.C. 7522(a)(2)(A) 6
42 U.S.C. 7522(a)(2)(A)-(D) 5
42 U.S.C. 7522(a)(3)(B) 6

VW FOIA, EPA 06/20/2017 2017-FFP_037143

Statutes and regulations—Continued: Page

42 U.S.C. 7523 ..... 17, 18
42 U.S.C. 7524 ..... 5, 17, 18
42 U.S.C. 7525 21
42 U.S.C. 7525(a) 3
42 U.S.C. 7525(a)(1) 3
42 U.S.C. 7525(b)(2) 4
42 U.S.C. 7525(c) 5
42 U.S.C. 7542 21
42 U.S.C. 7542(a) 5
42 U.S.C. 7547(a)(1)-(3) 3
42 U.S.C. 7547(a)(3) 3
42 U.S.C. 7547(d) 3, 21
42 U.S.C. 7550(1) 3, 4
42 U.S.C. 7550(3) 4
42 U.S.C. 7550(10) 3
42 U.S.C. 7605 15
28 U.S.C. 516 15
28 U.S.C. 519 15
Exec. Order No. 6166, § 5, June 10, 1933 (5 U.S.C. 901 note) 15
40 C.F.R. :
Section 89.110 4
Section 89.110(a)(1) 4
Section 89.110(a)(2) 4
Section 89.112 4
Section 89.119 21
Section 89.129 21
Section 89.503 ..... 5, 21
Section 89.504 21
Section 89.506 21

Regulations—Continued: Page

Section 89.701 *et seq.* 5
Section 89.801 *et seq.* 5
Section 89.1003(a)(1)(ii) 4
Section 89.1003(a)(2) 21
Section 89.1004 21
Section 89.1006(a) 21
Section 89.1007 5
Sections 1051.201-1051.255 3

Miscellaneous:

63 Fed. Reg.:
p. 59,334 (Nov. 3, 1998) 8
p. 66,820 (Dec. 3, 1998) 8
Power of the Attorney General in Matters of Compromise, 38 Op. Att'y Gen. 124 (1934) 15
Settlement Authority of the United States in Oil Shale Cases, 4B Op. O.L.C. 756 (1980) 16

VW FOIA, EPA 06/20/2017 2017-FFP_037145

In the Supreme Court of the United States

No. 14-748

VOLVO POWERTRAIN CORPORATION, PETITIONER

v.

UNITED STATES OF AMERICA, ET AL.

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

BRIEF FOR THE UNITED STATES IN OPPOSITION

OPINIONS BELOW

The opinion of the court of appeals (Pet. App. 1a–29a) is reported at 758 F.3d 330. The opinion of the district court (Pet. App. 30a–57a) is reported at 854 F. Supp. 2d 60.

JURISDICTION

The judgment of the court of appeals was entered on July 18, 2014. A petition for rehearing was denied on September 24, 2014 (Pet. App. 58a–59a). The petition for a writ of certiorari was filed on December 23, 2014. The jurisdiction of this Court is invoked under 28 U.S.C. 1254(1).

STATEMENT

This case involves a consent decree entered into by petitioner and the Environmental Protection Agency (EPA) in order to settle a lawsuit involving petition-

VW FOIA, EPA 06/20/2017 2017-FFP_037146

er's alleged violations of the Clean Air Act (CAA), 42 U.S.C. 7401 *et seq.* That decree required petitioner to ensure that nonroad engines manufactured at its facilities complied with certain emissions standards in circumstances where EPA certificates of conformity were sought authorizing the engines to be imported into the United States. See Pet. App. 60a-159a. In 2005, petitioner violated the consent decree when noncompliant engines were produced at its facility in Sweden and petitioner's corporate affiliate sought and obtained certificates of conformity for those engines from EPA. The district court awarded approximately $72 million in penalties and interest in accordance with the consent decree, and the court of appeals affirmed. *Id.* at 1a-29a, 56a.

1. a. Under Title II of the CAA, 42 U.S.C. 7521 *et seq.*, EPA must prescribe "standards applicable to the emission of any air pollutant from any class or classes of * * * new motor vehicle engines, which in [EPA's] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." 42 U.S.C. 7521(a)(1). In 1977, Congress amended Title II to require the emissions standards for "heavy-duty" engines to reflect "the greatest degree of emission reduction achievable" through the application of available technology, based on consideration of cost, energy, and safety. 42 U.S.C. 7521(a)(3)(A)(i). Heavy-duty engines are used in trucks, buses, and other vehicles manufactured primarily for use on public roads and weighing more than 6000 pounds. See 42 U.S.C. 7521(b)(3)(C). EPA may revise those standards based on information about the effects of engine emissions on public health and welfare, taking costs into account. 42 U.S.C. 7521(a)(3)(B)(i).

In 1990, Congress again amended Title II to require EPA, after conducting a study and making certain findings, to promulgate emissions standards for "nonroad engines" that cause or contribute to air pollution. 42 U.S.C. 7547(a)(1)-(3). A "nonroad engine" is an internal combustion engine that is not used in a motor vehicle or is not subject to the emissions standards for motor vehicles. 42 U.S.C. 7550(10). Like the standards for heavy-duty engines, the nonroad engine standards must require "the greatest degree of emission reduction achievable" with available technology, based on consideration of cost and other factors. 42 U.S.C. 7547(a)(3).

b. To ensure compliance with emissions standards, Title II of the CAA comprehensively prohibits the sale, offering for sale, introduction into commerce, delivery for introduction into commerce, and importation of any new motor vehicle engine in the United States unless the "manufacturer"—a term defined to include importers, see 42 U.S.C. 7550(1)—obtains from EPA a certificate of conformity. 42 U.S.C. 7522(a)(1); see 42 U.S.C. 7547(d).[1] To obtain such a certificate, a manufacturer must select and test a representative engine and demonstrate that it will meet applicable emissions standards. See 42 U.S.C. 7525(a); 40 C.F.R. 1051.201-1051.255. If the representative engine satisfies those requirements, EPA "shall issue a certificate of conformity" for up to a year upon such terms as the agency chooses to prescribe. 42 U.S.C. 7525(a)(1).

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[1] For ease of reference, this brief will generally refer to Section 7522(a)(1)'s prohibitions as addressing the "sale" or "import" of engines in the United States.

There is no general requirement that domestic or foreign manufacturers must obtain EPA certificates of conformity for their engines. Rather, the decision whether to seek such a certificate is voluntary, and such certificates are necessary only if the manufacturer wishes to sell the engine in this country. "A certificate of conformity is, in effect, a license that allows an automobile manufacturer to sell vehicles" inside the United States. *United States* v. *Chrysler Corp.*, 591 F.2d 958, 960 (D.C. Cir. 1979).

Because of the robust secondary market for nonroad engines, EPA certificates of conformity are also valuable to manufacturers who initially sell their engines *outside* the United States. See *Independent Equip. Dealers Ass'n* v. *EPA*, 372 F.3d 420, 422-423 (D.C. Cir. 2004). Imported engines must be covered by a certificate of conformity. See 42 U.S.C. 7522(a)(1), 7550(1), (3); 40 C.F.R. 89.1003(a)(1)(ii). As a result, when an engine manufacturer obtains a certificate, its engines become more marketable, since they can then be sold in or imported into the United States. See 40 C.F.R. 89.110(a)(1) and (2) (requiring engines with EPA certificates of conformity to bear "a permanent and legible label" attesting to certification that is "durable and readable for the entire engine life").

EPA may later suspend or revoke a certificate of conformity if the agency determines that the engine covered by the certificate does not satisfy applicable emissions requirements. See 42 U.S.C. 7525(b)(2). Under EPA regulations, certificate holders must comply with a variety of requirements concerning not only emissions limitations, *e.g.*, 40 C.F.R. 89.112, but also, *inter alia*, labeling, 40 C.F.R. 89.110; recall lia-

bility, 40 C.F.R. 89.701 *et seq.*; emissions defect reporting, 40 C.F.R. 89.801 *et seq.*; warranty obligations, 40 C.F.R. 89.1007; and selective enforcement auditing, 40 C.F.R. 89.503.

Unless an engine is covered by a valid certificate of conformity, Title II generally prohibits "the sale, or the offering for sale, or the introduction, or delivery for introduction, into commerce" of the engine by the manufacturer and "the importation into the United States" of the engine by "any person." 42 U.S.C. 7522(a)(1). Manufacturers are also subject to various recordkeeping, information-collection, inspection, access, and reporting requirements to enable EPA to determine compliance with the CAA. See, *e.g.*, 42 U.S.C. 7525(c), 7542(a). Failure to comply with such requirements is likewise prohibited. See 42 U.S.C. 7522(a)(2)(A)-(D). Persons committing acts prohibited by the statute are subject to civil penalties through suits in federal district court or through administrative proceedings. See 42 U.S.C. 7524.

2. a. In the late 1990s, the United States brought civil enforcement actions against virtually all of the leading manufacturers of heavy-duty engines, including petitioner's corporate predecessor, Volvo Truck Corporation (Volvo Truck). The actions alleged CAA violations related to the use of computer software in the fuel-injection systems of the manufacturers' engines. The government alleged that, although the software improved the engines' fuel economy, it also increased nitrogen-oxide emissions during actual driving conditions as compared to test conditions. Pet. App. 31a; see *United States* v. *Caterpillar, Inc.*, 227 F. Supp. 2d 73, 77 (D.D.C. 2002) (discussing history of the enforcement actions).

Because the software's effect on nitrogen-oxide emissions had not been described in Volvo Truck's applications for certificates of conformity, the government alleged that the manufacturer had violated 42 U.S.C. 7522(a)(1) by selling engines that were not covered by valid certificates of conformity. The government also alleged that Volvo Truck should have known that installing the software defeated the engines' emissions controls, in violation of 42 U.S.C. 7522(a)(3)(B), and that Volvo Truck had failed to provide EPA with complete and accurate information about the software settings, in violation of 42 U.S.C. 7522(a)(2)(A).

b. The government conducted concurrent settlement negotiations with Volvo Truck and the other manufacturer defendants in the related enforcement actions. The various parties negotiated separate, but substantially similar, consent decrees. See Pet. App. 62a-159a (Volvo Truck consent decree).

As part of its consent decree, Volvo Truck agreed to implement stricter emissions standards on certain nonroad engines one year in advance of the date when the regulations otherwise required it to do so—a provision known as the nonroad "pull-ahead" requirement. Pet. App. 103a. The government sought that commitment from the manufacturers in order to offset a portion of the millions of tons of emissions that were attributable to the use of the software in the manufacturers' heavy-duty engines. Volvo Truck did not manufacture nonroad engines, but its sister company, Volvo Construction Equipment (Volvo Construction), did. The pull-ahead requirement was memorialized in paragraph 60 of the decree, which provides in relevant part as follows:

> All Nonroad [Combustion Ignition] Engines manufactured by [Volvo Truck], or its affiliate, [Volvo Construction], on or after January 1, 2005, with a horsepower equal to or greater than 300 but less than 750 shall meet 3.0 g/bhp-hr for [oxides of nitrogen] plus [non-methane hydrocarbon] when measured on the applicable [federal test procedure] for those engines. In addition, all Nonroad [Combustion Ignition] Engines Manufactured by VCE or VTC on or after January 1, 2005, with a horsepower equal to or greater than 300 but less than 750 shall comply with all other requirements that would apply as if the engines were Model Year 2006 engines.

Ibid.

The consent decree contains "Noncircumvention Provisions" intended to ensure, *inter alia*, that Volvo Truck's facilities will not be used by other entities to manufacture engines that violate the decree's requirements. To that end, paragraph 110 provides that

> All [heavy-duty diesel engines] and Nonroad [Combustion Ignition] Engines manufactured at any facility owned or operated by [Volvo Truck] on or after January 1, 1998, for which a Certificate of Conformity is sought, must meet all applicable requirements of this Decree, regardless of whether [Volvo Truck] still owned, owns, operated, or operates that facility at the time the engine is manufactured.

Pet. App. 127a-128a.

The consent decree included provisions by which Volvo Truck agreed to pay stipulated penalties if certain violations of the decree occurred, as well as dis-

pute-resolution provisions. Pet. App. 130a-143a, 146a. The dispute-resolution procedures require a period of informal negotiation, followed by an exchange of written statements of position, and an opportunity for Volvo Truck to file with the district court a "motion for judicial review of the dispute," to which the government can respond. *Id.* at 148a. The decree further provides that the district court retains jurisdiction over the case after entry of the decree for the purpose of (1) allowing the parties to apply "at any time for such further order, direction, and relief as may be necessary or appropriate for the construction or modification" of the decree, and (2) "effectuat[ing] or enforc[ing] compliance with its terms, or * * * resolv[ing] disputes in accordance with the dispute resolution procedures." *Id.* at 154a.

After the Department of Justice requested and responded to public comments on the proposed consent decree, see 63 Fed. Reg. 59,334 (Nov. 3, 1998); *id.* at 66,820 (Dec. 3, 1998), the district court entered the decree in July 1999. In 2002, petitioner informed the district court that it had assumed Volvo Truck's responsibilities under the decree. Pet. App. 7a-8a.

3. Several years later, the government received allegations that a corporation affiliated with petitioner had obtained certificates of conformity for model-year 2005 nonroad engines manufactured at petitioner's facilities without satisfying the pull-ahead provision in the consent decree. After reviewing its certification records, EPA discovered that Volvo Penta had requested and obtained certificates for 8354 model-year 2005 nonroad engines manufactured at petitioner's facilities, and that the engines were not certified to the more stringent, model-year 2006 emissions stand-

ards, as the decree required. The government sent petitioner a letter demanding approximately $72 million in penalties and interest for petitioner's violations of the decree. Pet. App. 175a-177a.

Petitioner invoked the consent decree's dispute-resolution procedures. See Pet. App. 9a. The parties were unable to resolve the dispute informally, and petitioner sought judicial review by filing a motion with the district court. See *ibid.* The California Air Resources Board was granted leave to intervene to resolve a parallel dispute with petitioner over alleged violations of a settlement agreement nearly identical to the decree. See *ibid.* After briefing and oral argument, the district court issued a written opinion denying petitioner's motion. Pet. App. 30a-57a.

First, the district court considered whether the consent decree covers engines produced by petitioner but submitted for certification by its sister corporation. Pet. App. 35a. The court held that the decree applies in this circumstance because "[a]ll non-road engines built at [petitioner's] facility and submitted for certification by the EPA are covered by Paragraph 110 of the consent decree and required to conform to the non-road pull-ahead" requirement. *Ibid.* In reaching that conclusion, the court emphasized that paragraph 110 applies the pull-ahead requirement to all nonroad engines "manufactured at" a facility owned or operated by petitioner at any time after 1998 "for which a Certificate of Conformity is sought," "regardless of" who owns or operates the facility at the time of manufacture. *Id.* at 38a.

The district court also addressed petitioner's "fallback" argument that only engines introduced into domestic commerce are covered by the consent de-

cree. The court held that a consent decree may require more than the statute under which the suit was brought, and that the requirements of paragraph 110 unambiguously apply to all nonroad engines for which certificates are sought, regardless of whether EPA could have regulated the engines produced for sale abroad. Pet. App. 47a.

The district court found that 8354 model-year 2005 engines were produced at petitioner's facility and labeled for importation as EPA-certified nonroad engines, and that those nonroad engines did not comply with the model-year 2006 emissions standards. Pet. App. 48a. Accordingly, the court held that the engines had been manufactured and submitted for certification in violation of the consent decree. *Ibid.*

The district court then considered the appropriate remedy for petitioner's violations of the consent decree. The court held that, although the literal terms of the decree's stipulated-penalty provision (paragraph 116) did not apply to the violations at issue, the provision did not constrain the court's authority to fashion an equitable remedy for the decree violations. Pet. App. 51a. After considering the stipulated-penalty provision and the penalties paid by a different manufacturer to comply with a pull-ahead emission standard in its own consent decree, the court ordered petitioner to pay approximately $66 million in penalties. *Id.* at 51a-52a. The court also awarded approximately $6 million in pre-demand interest. *Id.* at 52a.

4. The court of appeals affirmed. Pet. App. 1a-29a. The court held that the pull-ahead requirement "unambiguously applies" to the engines at issue. *Id.* at 13a. Applying "general principles of contract law" to interpret the consent decree, the court explained that,

because certificates of conformity were sought for nonroad engines manufactured at petitioner's facilities, the engines were required to meet all applicable decree requirements, including the nonroad pull-ahead provision. *Id.* at 14a.

The court of appeals also held that the engines fell within the consent decree's definition of nonroad engines regardless of whether they had actually been imported into the United States. Pet. App. 19a-22a. The court rejected petitioner's argument that the decree should be interpreted more narrowly in order to avoid extraterritorial applications of the CAA. See *id.* at 20a-21a. The court explained that, "because a manufacturer brings itself within the jurisdiction of the United States when it affirmatively *asks* EPA to issue certificates of conformity, there is no issue of extraterritoriality here." *Id.* at 21a. Finally, the court held that the district court had not abused its discretion when calculating the approximately $66 million in penalties at issue. *Id.* at 24a-27a.

ARGUMENT

Petitioner argues (Pet. 13-31) that the courts below misconstrued the consent decree by imposing liability for extraterritorial conduct that is outside the scope of the CAA. Specifically, petitioner contends (Pet. 13) that the courts erred by assessing penalties for 7262 engines that petitioner had built at its facility in Sweden for Volvo Penta, and for which Volvo Penta had obtained certificates of conformity from EPA, but which petitioner asserts were never sold in the United States. The court correctly interpreted the unambiguous language of the decree to encompass those engines, and its decision does not conflict with any deci-

sion of this Court or any other court of appeals. Further review is not warranted.[2]

1. The court of appeals correctly interpreted the consent decree to apply to the Volvo Penta engines at issue here. That result follows from the plain language of the decree. Paragraph 110 of the decree states that "all" nonroad compression-ignition engines "manufactured at any facility owned or operated by [Volvo Truck] on or after January 1, 1998, for which a Certificate of Conformity is sought, must meet all applicable requirements of this Decree." Pet. App. 127a-128a; see *id.* at 72a (indicating that consent decree binds Volvo Truck's successors, *i.e.*, petitioner); see also *id.* at 14a. One of the "applicable requirements of this Decree" cross-referenced in paragraph 110 is the pull-ahead requirement set forth in paragraph 60. *Id.* at 103a; see *id.* at 14a.

Petitioner does not dispute that (1) the Volvo Penta engines at issue here were manufactured at petitioner's facility, (2) the engines did not satisfy the pull-

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[2] Petitioner no longer disputes (Pet. 13) the penalties assessed with respect to 1092 of the 8354 Volvo Penta engines that gave rise to the penalties awarded below. It challenges (Pet. 13) only the penalties assessed with respect to the 7262 remaining engines, on the ground that those engines were never imported into the United States. The district court did not conduct an evidentiary hearing or make factual findings with respect to how many of the engines at issue ultimately entered into the United States, because it held that petitioner had violated the consent decree with respect to all 8354 engines for which EPA certificates of conformity were sought. See 1/31/12 Hr'g Tr. 28-29 (district court and petitioner's counsel agreeing that court could not make relevant factual findings on existing record without discovery or hearing). The government disputes petitioner's unsupported assertion (Pet. 13) that 7262 engines "were never offered for sale, sold, or imported within the boundaries of this country."

ahead requirement, and (3) Volvo Penta nonetheless obtained certificates of conformity for the engines from EPA. Pet. App. 12a-14a; see Pet. C.A. Br. 8-9. Petitioner therefore violated the consent decree by failing to ensure that the engines manufactured at its facility satisfied the decree's requirements. The courts below correctly held petitioner liable and assessed penalties for its violation of the decree.

2. Petitioner does not argue that the court of appeals' interpretation of the consent decree, or its straightforward application of that decree to the facts of this case, is inconsistent with any precedent of this Court. Nor does it allege that the decision below conflicts with any decision by any other court of appeals interpreting petitioner's own consent decree or any similar decree. Instead, petitioner contends (Pet. 14-20) that the court of appeals misconstrued the decree to impose liability for extraterritorial conduct to which the CAA does not apply. In petitioner's view, the decree imposes liability only with respect to engines that are actually imported into the United States.

Petitioner's contentions lack merit. As the court of appeals correctly held, the consent decree "unambiguously applies" to the engines at issue. Pet. App. 13a. Petitioner is wrong to argue that its liability under the consent decree extends no further than its liability under the CAA itself, and it is also wrong to argue that the presumption against extraterritorial application of federal statutes has any bearing on this case. The consent decree does not regulate foreign emissions for their own sake. Rather, the relevant provision of that decree applies only to engines for which a manufacturer requests an EPA certificate of conform-

ity, the whole purpose of which is to allow the engine to be sold in or imported into the United States.

a. Petitioner's argument rests on its premise that, because a particular CAA provision (42 U.S.C. 7522(a)(1)) does not authorize EPA to impose penalties on engine manufacturers with respect to engines that are never imported to or offered for sale in the United States, the consent decree must be given a similarly narrow reading. That logic is flawed. It is neither illegal nor anomalous for a consent decree to impose obligations that go beyond those imposed by the governing statute.

The "voluntary nature of a consent decree is its most fundamental characteristic." *Local No. 93, Int'l Ass'n of Firefighters* v. *City of Cleveland*, 478 U.S. 501, 521-522 (1986) (*Firefighters*). It is "the agreement of the parties, rather than the force of the law upon which the complaint was originally based, that creates the obligations embodied in a consent decree." *Id.* at 522. As a result, "whatever * * * limitations Congress placed" on the remedies available for the violation of a statute "simply do not apply when the obligations are created by a consent decree." *Id.* at 522-523. Parties therefore can agree to relief that is broader than the relief a court could have awarded after trial if the claims had been fully adjudicated. *Id.* at 525 (citing, *inter alia*, *Swift & Co.* v. *United States*, 276 U.S. 311, 327-331 (1928), and *Pacific R.R.* v. *Ketchum*, 101 U.S. 289, 295-297 (1880)).

In articulating the standard for modifying a consent decree, the Court has similarly explained that the parties to the original suit "could settle the dispute over the proper remedy for the constitutional violations that had been found by undertaking to do more

than the Constitution itself requires * * * , but also more than what a court would have ordered absent the settlement." *Rufo* v. *Inmates of Suffolk Cnty. Jail*, 502 U.S. 367, 389 (1992). Taken together, *Firefighters* and *Rufo* confirm the longstanding principle that "[p]arties to a suit have the right to agree to any thing they please in reference to the subject-matter of their litigation, and the court, when applied to, will ordinarily give effect to their agreement, if it comes within the general scope of the case made by the pleadings." *Pacific R.R.*, 101 U.S. at 297; see *Swift*, 276 U.S. at 327.

The fact that the United States is a party to the consent decree at issue here does not alter the principles described above. Congress has vested the Attorney General with authority to conduct and supervise litigation on behalf of the United States, including with respect to the CAA. See 28 U.S.C. 516, 519 (general provisions); 42 U.S.C. 7605 (CAA). Such authority includes the power to compromise claims through consent decrees.[3] And such decrees can impose requirements that go beyond the underlying statutory directives that the United States seeks to enforce by bringing the litigation. See *Swift*, 276 U.S. at 331

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[3] See, *e.g.*, *Swift*, 276 U.S. at 331; *Confiscation Cases*, 74 U.S. (7 Wall.) 454, 458 (1869); *United States* v. *Hercules, Inc.*, 961 F.2d 796, 798 (8th Cir. 1992); *United States* v. *Newport News Shipbuilding & Dry Dock Co.*, 571 F.2d 1283, 1287 (4th Cir.), cert. denied, 439 U.S. 875 (1978); see also Exec. Order No. 6166, § 5, June 10, 1933 (5 U.S.C. 901 note); *Power of the Attorney General in Matters of Compromise*, 38 Op. Att'y Gen. 124, 126 (1934) (stating that the Attorney General has the power to "compromise any case on such terms as he sees fit," and that this power "is in part inherent [in the Attorney General's] office and in part derived from various statutes and decisions").

("[W]e do not find in the statutes defining the powers and duties of the Attorney General any * * * limitation" on entering into a consent decree that contains broader prohibitions than does the underlying statute.). Indeed, the entire pull-ahead requirement that is at issue in this case reflected the parties' voluntary agreement to go beyond the requirements imposed by the CAA itself, in order to provide the environmental remediation the United States deemed necessary in light of petitioner's prior violations of the statute.[4]

The relevant provisions of the consent decree here advance the core goals of the CAA. An EPA certificate of conformity has the practical effect of a license to sell or import the engine into the United States. Once that permission has been granted, it is unlikely that either petitioner or the government could track the end use of the Volvo Penta engines or determine whether and when any such engine crossed the border

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[4] Courts have sometimes rejected settlement agreements that required the United States to take actions in violation of federal law. See, *e.g.*, *United States* v. *Carpenter*, 526 F.3d 1237, 1242 (9th Cir. 2008) (alleging that the United States had granted a county a property interest in public land without complying with statutory procedures for relinquishing title or issuing rights-of-way), cert. denied, 556 U.S. 1147 (2009); *Executive Bus. Media, Inc.* v. *U.S. Dep't of Def.*, 3 F.3d 759, 761 (4th Cir. 1993) (alleged failure of the Department of Defense to comply with regulations for competitive bid procedures); but see *Settlement Authority of the United States in Oil Shale Cases*, 4B Op. O.L.C. 756, 758 (1980) ("[T]he Attorney General—in the exercise of his settlement responsibilities—is not bound by each and every statutory limitation and procedural requirement that Congress may have specifically imposed upon some other agency head in the administration of that agency's programs."). The consent decree at issue here does not require the government to take any action forbidden by other provisions of law.

into the United States. Pet. App. 22a.[5] To ensure that all engines manufactured at petitioner's facility that ultimately reach this country satisfy the pull-ahead requirement, it therefore was necessary and appropriate for the consent decree to link that requirement to the submission of a request for a certificate of conformity. See Pet. App. 42a (emphasizing that the "benefit for which the [United States] bargained" in the consent decree is the "ease and certainty of application [of the pull-ahead requirement]").

b. Petitioner also argues (Pet. 17) that paragraph 62 of the consent decree "expressly limit[s]" the scope of EPA's authority to enforce the pull-ahead requirements to its "domestic enforcement authority under the CAA." Petitioner is mistaken. Paragraph 62 states only that, with respect to nonroad engines subject to the pull-ahead requirement, EPA "may" exercise enforcement authority under its regulations or under the CAA. Pet. App. 104a (noting, *inter alia*, that EPA may "tak[e] enforcement action against prohibited acts"); see 42 U.S.C. 7523, 7524 (authorizing EPA to initiate CAA enforcement actions to restrain prohibited acts and assess civil penalties). It does not indicate that such authority is the *exclusive* means by which the government may obtain redress for a violation of the decree.

On the contrary, the consent decree itself makes clear that alternative avenues exist through which the government may enforce the decree. For example, as occurred here, the government may demand stipulated penalties from petitioner for certain violations of

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[5] See Pet. C.A. Reply Br. 30 (conceding that "it may be difficult to track the precise destination and current use of every single engine throughout the world").

the decree. Pet. App. 130a-143a. In response to such a demand, petitioner may exhaust the dispute-resolution procedures specified in the decree and, if necessary, may invoke the district court's jurisdiction by filing a motion for judicial review of any dispute concerning that demand. *Id.* at 146a-149a. The consent decree thus expressly contemplates that the decree may be enforced through judicial proceedings (like the proceedings in this case) that are distinct from CAA enforcement actions brought by the government under 42 U.S.C. 7523 and 7524.

The consent decree further provides that the parties may "apply to the Court at any time for such further order, direction, and relief as may be necessary or appropriate for the construction" of the decree or "to effectuate or enforce compliance with its terms." Pet. App. 154a. That is a broad allowance for relief beyond the ordinary enforcement actions that EPA may bring under the CAA. See *id.* at 104a.[6] Petitioner is accordingly mistaken to suggest that the parties intended to limit EPA's enforcement authorities to those referenced in paragraph 62 of the decree.

c. Petitioner repeatedly invokes (Pet. 13-16, 19) the canon of statutory interpretation that "legislation of Congress, unless a contrary intent appears, is meant to apply only within the territorial jurisdiction of the United States." *EEOC* v. *Arabian Am. Oil Co.*, 499 U.S. 244, 248 (1991). The presumption against

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[6] The consent decree also makes clear that, in addition to the payment of the penalties expressly stipulated in the decree, "the United States specifically reserves all other rights and remedies which may be available to the United States by reason of [Volvo Truck's] failure to comply with the requirements of this Consent Decree." Pet. App. 142a.

extraterritorial effect does not support petitioner's position in this case.

As a general matter, the CAA does not require engine manufacturers to obtain EPA certificates of conformity for engines that are never delivered to, or sold in, the United States. That is clear from the CAA's text and EPA's implementing regulations, and it is reinforced by the presumption against extraterritoriality.[7] The courts below, however, found petitioner liable under the consent decree, not under the CAA itself. See pp. 9-11, *supra*.

Petitioner also invokes the presumption against extraterritoriality as a ground for construing the consent decree to exclude the engines at issue here. Pet. 19 (citing *Kiobel* v. *Royal Dutch Petroleum Co.*, 133 S. Ct. 1659 (2013)). Petitioner cites no decision that has used the presumption as a tool for interpreting a contract, settlement agreement, or consent decree. But even if that interpretive method might sometimes be appropriate, petitioner is wrong in arguing that the decision below constitutes extraterritorial application of the consent decree.

"[B]ecause a manufacturer brings itself within the jurisdiction of the United States when it affirmatively *asks* EPA to issue certificates of conformity, there is no issue of extraterritoriality here." Pet. App. 21a. Paragraph 110 of the consent decree applies only to nonroad engines "for which a Certificate of Conformity is sought." *Id.* at 127a-128a. Those certificates are

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[7] As petitioner points out (Pet. 2-3, 5, 13, 16, 21), the government advanced this interpretation of the CAA in the D.C. Circuit in *Independent Equipment Dealers Ass'n* v. *EPA*, 372 F.3d 420 (2004). See EPA Br., *Independent Equip.*, *supra*, No. 03-1020, 2003 WL 23003369, at *38-*40 (D.C. Cir. Dec. 11, 2003).

issued in the United States by an agency of the United States government; their core purpose is to authorize the sale of the engine within the United States or its importation into this country; and they directly implicate the sovereign authority of the United States to regulate the items that may potentially cross the Nation's borders and be offered for sale here. See generally *United States* v. *Chrysler Corp.*, 591 F.2d 958, 960 (D.C. Cir. 1979) ("A certificate of conformity is, in effect, a license that allows an automobile manufacturer to sell vehicles to the public [inside the United States]."). By regulating the terms under which those certificates could be requested, the consent decree regulated domestic conduct, even with respect to engines manufactured outside the United States.

For similar reasons, petitioner is also wrong to suggest (Pet. 4) that EPA's effort to enforce the consent decree here amounts to "regulat[ing] foreign emissions" for their own sake. Volvo Penta had no obligation to seek EPA certificates of conformity for the engines at issue here, and petitioner would not be in violation of the consent decree if Volvo Penta had declined to do so. But because a certificate of conformity authorizes the importation and sale of an engine within the United States, and because it is generally infeasible to track the movement of particular engines for which such certificates have been issued, paragraph 110 is an appropriate means of preventing non-compliant engines from entering this country and emitting pollution here. See pp. 3-5, 16-17, *supra*. The fact that paragraph 110 applies only to nonroad engines "for which a Certificate of Conformity is sought," Pet. App. 127a-128a, refutes petitioner's

contention that the decree is intended to regulate foreign emissions.

Petitioner's reliance (Pet. 2-3, 5, 13, 16, 21) on the government's D.C. Circuit brief in *Independent Equipment Dealers Ass'n* v. *EPA*, 372 F.3d 420 (2004), is misplaced. That case involved the requirements of the CAA, not of a consent decree. See note 7, *supra*. Although the government's brief in *Independent Equipment* agreed that the CAA does not require certificates of conformity for engines that will never be sold or imported in the United States, that brief did not state or imply that a foreign company's request for an EPA certificate of conformity involves purely extraterritorial conduct. There is no inconsistency between the positions advanced by the government in *Independent Equipment* and in this case.

The CAA itself reflects the United States' legitimate interest in regulating both the circumstances under which certificates of conformity are obtained from EPA, and the circumstances under which companies manufacture engines covered by such certificates. For example, the CAA authorizes EPA to take enforcement action against various "prohibited acts." 42 U.S.C. 7522(a)(2). Those acts include violations of CAA testing, reporting, and inspection provisions that apply to, *inter alia*, engine manufacturers who voluntarily seek certificates of conformity for their engines.[8] The CAA imposes liability for those prohibited acts regardless of whether the manufacturer's engines

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[8] See 42 U.S.C. 7522(a)(2); see also 42 U.S.C. 7525, 7542, 7547(d); 40 C.F.R. 89.119, 89.129, 89.503, 89.504, 89.506, 89.1003(a)(2), 89.1004, 89.1006(a) (subjecting manufacturers to potential liability, in accordance with 42 U.S.C. 7522(a)(2), by virtue of their efforts to obtain EPA certificates of conformity).

are ultimately sold in the United States. The CAA therefore reflects Congress's judgment that, in certain circumstances, a company can bring itself within the CAA's reach by seeking and securing a certificate of conformity from EPA, even if other aspects of its conduct occur outside this country. Paragraph 110 of the consent decree at issue here reflects the same judgment.

d. For the reasons explained above, petitioner is wrong to assert that the court of appeals misconstrued the consent decree or that EPA improperly sought penalties for violations of the decree. Petitioner is therefore also wrong (Pet. 20-25) to suggest that the Court's review is necessary to curb executive overreach by EPA or to "constrain the administrative state within its proper constitutional sphere."

This case concerns the proper interpretation of a single consent decree—an instrument that was "entered into by parties to a case after careful negotiation ha[d] produced agreement on [its] precise terms." *United States* v. *Armour & Co.*, 402 U.S. 673, 681 (1971). By entering into the decree—which "normally embodies a compromise"—petitioner "g[a]ve up something [it] might have won had [it] proceeded with the litigation," in exchange for "the saving of cost and elimination of risk" of what it might have lost. *Ibid.* Because the government sought only to enforce an obligation that petitioner had voluntarily accepted, this case would not be a suitable vehicle for considering broader questions about the limits on unilateral agency conduct.

3. Although petitioner does not allege any split of authority over the questions presented, it urges (Pet. 25) this Court to grant review "to resolve circuit court

confusion over the judicial treatment of regulatory consent decrees." Specifically, petitioner asserts (Pet. 26-31) that there is confusion about (1) the extent to which a consent decree may vary from the statute giving rise to the underlying litigation, and (2) the principles that courts should apply when interpreting such decrees. Those arguments lack merit.

a. As explained above, a consent decree may impose obligations, and authorize relief, beyond those established and authorized by the statute that gave rise to the underlying litigation. See pp. 13-16, *supra*; *Firefighters*, 478 U.S. at 522-525. Petitioner does not appear to dispute this point. See Pet. 26-27 (acknowledging *Firefighters*). Petitioner correctly observes that a consent decree must "further the objectives of the law upon which the complaint was based" and must not "conflict[] with or violate[] the statute upon which the complaint was based." Pet. 27 (quoting *Frew* v. *Hawkins*, 540 U.S. 431, 437 (2004), and *Firefighters*, 478 U.S. at 526); see note 4, *supra*. But both of those requirements are already generally accepted, both by the parties in this case and by the courts of appeals.

Both requirements are also satisfied here. The consent decree (1) imposes a pull-ahead requirement to compensate for petitioner's prior alleged violations of the CAA, and (2) creates a workable mechanism for enforcing that pull-ahead requirement with respect to any covered engines that might be imported for sale in the United States. See Pet. App. 42a; pp. 16-17, *supra*. By seeking to reduce post-decree emissions within the United States, the consent decree furthers governmental objectives that are legitimate, important, and squarely rooted in the purposes of the

CAA. Nothing in the decree conflicts with the CAA or requires either petitioner or EPA to violate the statute.

b. Petitioner is also wrong to suggest (Pet. 27-30) that this case implicates confusion over the rules that generally govern judicial interpretation of consent decrees. Petitioner posits (Pet. 27-28) a conflict between this Court's allegedly "inconsistent holdings" in *Armour*, 402 U.S. at 682, and *United States* v. *ITT Continental Baking Co.*, 420 U.S. 223, 236-237 (1975). According to petitioner, *Armour* sets forth a strict rule by which a consent decree must be interpreted only "'within its four corners' and not by reference to any purpose of the parties or of underlying statutes," Pet. 27 (quoting *Armour*, 402 U.S. at 682), whereas *ITT Continental Baking* directs courts to interpret such decrees in light of the statute giving rise to the litigation, Pet. 28-29.

In fact, there is no conflict between the two decisions. In *ITT Continental Baking*, this Court expressly reaffirmed *Armour*'s basic rule that a consent decree must "be construed for enforcement purposes basically as a contract," with a focus on the "four corners" of the decree itself. 420 U.S. at 238. The Court further explained, however, that—just as with other contracts—"reliance upon certain aids to construction is proper" in circumstances where the decree's terms are ambiguous. *Id.* at 238 & n.11. The Court noted that such aids include "the circumstances surrounding the formation of the consent order, any technical meaning words used may have had to the parties, and any other documents expressly incorporated in the decree." *Id.* at 238.

The Court in *ITT Continental Baking* then considered the "specialized meaning" that the words of the consent order at issue had acquired "in the antitrust field, since [the parties] were composing a legal document in settlement of an antitrust complaint." 420 U.S. at 240. In conducting that analysis, the Court looked to the way that some of those words were used in the Clayton Act, 15 U.S.C. 12 *et seq.* *ITT Cont'l Baking*, 420 U.S. at 240. The Court emphasized, however, that its interpretive approach "d[id] not in any way depart from the 'four corners' rule of *Armour*." *Id.* at 238.

Petitioner cites (Pet. 28-30) various court of appeals decisions in an effort to show that there is confusion over how to interpret consent decrees. But the cited decisions are entirely consistent with the general approach set forth in *ITT Continental Baking*. None of those decisions rejects the *ITT Continental Baking* framework or suggests that the broad purposes of the underlying statutory scheme can supersede the unambiguous language of a consent decree.[9]

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[9] The two decisions that petitioner identifies (Pet. 28-29) as applying "the pre-*ITT Continental Baking* rule" expressly *embrace* that decision's statement of the operative legal standard. See *Sierra Club* v. *Meiburg*, 296 F.3d 1021, 1031 (11th Cir. 2002); *Paralyzed Veterans of Am., Inc.* v. *Washington Metro. Area Transit Auth.*, 894 F.2d 458, 461-462 (D.C. Cir. 1990) (per curiam). Petitioner is also mistaken to assert (Pet. 30) that the Tenth Circuit's decision in *Biodiversity Assocs.* v. *Cables*, 357 F.3d 1152, cert. denied, 543 U.S. 817 (2004), departs from *ITT Continental Baking* by "reject[ing] the contract paradigm altogether." In fact, the court in *Biodiversity Associates* acknowledged that consent decrees are contractual in nature, but also emphasized that such degrees must advance statutory objectives. See 357 F.3d at 1169.

In any event, this case does not implicate any of the alleged confusion that petitioner identifies. The court of appeals correctly held that the plain language of the consent decree "unambiguously" encompasses the engines at issue here. Pet. App 13a. Petitioner asks this Court to rely on the CAA to impose an additional requirement—that the engines have actually been sold or imported for sale in the United States—for liability under the decree. But neither *ITT Continental Baking* nor this Court's other decisions permit a court to add new terms to an unambiguous consent decree based solely on the purposes of the statute that gave rise to the underlying litigation. The Court should reject petitioner's effort to rewrite the unambiguous terms of the decree to which it voluntarily acceded.

4. Finally, the interpretation of the consent decree at issue here is unlikely to have any ongoing significance. The pull-ahead and noncircumvention provisions appear in the consent decrees that the government entered into with petitioner and other settling heavy-duty engine manufacturers, but they are not typical of most such settlements. The highly fact-bound nature of the dispute in this case provides a further reason for this Court to deny review.

CONCLUSION

The petition for a writ of certiorari should be denied.

Respectfully submitted.

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MAY 2015

591 F.2d 958, *; 192 U.S. App. D.C. 349;
1979 U.S. App. LEXIS 17662, **; 12 ERC (BNA) 1734

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UNITED STATES OF AMERICA v. CHRYSLER CORPORATION, APPELLANT

No. 77-2098

UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

591 F.2d 958*; *192 U.S. App. D.C. 349*; *1979 U.S. App. LEXIS 17662*; *12 ERC (BNA) 1734*; *9 ELR 20091

December 5, 1978, Argued
January 12, 1979, Decided

PRIOR HISTORY: [**1] Appeal from the United States District Court for the District of Columbia (Civil Action No. 76-0031).

COUNSEL: James A. Hourihan, Washington, D. C., with whom Gail Starling Marshall, Washington, D. C., was on the brief, for appellant.

John E. Varnum, Atty., Dept. of Justice, Washington, D. C., with whom James W. Moorman, Asst. Atty. Gen., Angus Macbeth, and Dirk D. Snel, Attys., Dept. of Justice, Washington, D. C., were on the brief, for appellee.

JUDGES: Before TAMM, ROBINSON and MacKINNON, Circuit Judges.Opinion for the court filed by Circuit Judge, TAMM.

OPINION BY: TAMM

OPINION

[*959] The Chrysler Corporation (Chrysler) appeals from a ruling of the United States District Court for the District of Columbia (Hart, J.) that Chrysler violated section 203(a) of the Clean Air Act (Act). The district court held that when one or more parts erroneously installed in a vehicle are intimately related to and reasonably may be expected to affect emission controls, such vehicle is not covered by the certificate of conformity although the vehicle may, in fact, meet emission standards. *United States v. Chrysler Corp., 437 F. Supp. 94 (D.D.C.1977)*. We affirm.

The facts [**2] in this case are not in dispute. In mid-1973, Chrysler applied to the Environmental Protection Agency (EPA) for a certificate of conformity in order to market its 1974 model vehicles, as required by section 203(a)(1). [1] On August 3, 1973, EPA issued a certificate of conformity to Chrysler for its RG engine family. [2] The certificate by its terms covered "only those new motor vehicles or new motor vehicle engines which conform, in all material respects, to the design specifications described in the application for this certificate and which are produced during the 1974 model year production period." *437 F. Supp. at 95-96*.

1. Section 203(a)(1) prohibits, in pertinent part:

> (I)n the case of a manufacturer of new motor vehicles or new motor vehicle engines for distribution in commerce, the sale or the offering for sale, or the introduction, or delivery for introduction, into commerce, or (in the case of any person, except as provided by regulation of the Administrator), the importation into the United States of any new motor vehicle or new motor vehicle engine, manufactured after the effective date of regulations under this part which are applicable to such vehicle or engine unless such vehicle or engine is covered by a certificate of conformity issued (and in effect) under regulations prescribed under this part . . . .
>
> 42 U.S.C. § 1875f-2(a)(1) (1976) (as amended *42 U.S.C.A. § 7522 (1977)*).

[**3]

2. Chrysler's RG engine family included 198 and 225 cubic inch displacement engines used in, among others, its Plymouth Valiant and Dodge Dart automobiles.

After the 1974 models were produced, EPA and the California Air Resources Board [3] discovered thirty-seven

vehicles that were equipped with parts different [*960] than those specified in Chrysler's application for the certificate of compliance. [4] On January 7, 1976, the United States brought a civil action to impose penalties for Chrysler's alleged violation of section 203(a)(1). [5] The government contended that the automobiles with different parts did not conform, in all material respects, to the design specifications described in the application and therefore were not covered by the certificate of conformity. The district court, upholding these contentions, found thirty-seven violations of the Act, and levied a fine of $ 3,700 against Chrysler. [6] This appeal followed.

3. The Environmental Protection Agency (EPA) granted California the authority to impose its own more stringent standards for emission controls of 1974 model cars. See *37 Fed.Reg. 8128 (1972)*. To comply with California standards, Chrysler manufactured both "California" vehicles and "non-California" vehicles. According to Chrysler, the error in assembly that precipitated this case occurred when "California" parts were installed in "non-California" vehicles, or vice versa; or when parts for use in automatic transmission vehicles were installed in manual transmission vehicles, or vice versa. Brief for Appellant Chrysler Corporation at 5.

[**4]

4. The mistaken parts included distributors, carburetors, exhaust gas recirculation valves and orifice spark advance controls.

5. Section 305 of the Clean Air Act (Act), *42 U.S.C. § 1857h-3 (1976)* (as amended *42 U.S.C.A. § 7605(a) (1977)*), authorizes the Attorney General to represent EPA in any civil action in which EPA is a party.

6. Under section 205 of the Act, *42 U.S.C. § 1857f-4 (1976)* (as amended *42 U.S.C.A. § 7524 (1977)*), the sale of each motor vehicle in violation of section 203(a)(1) constitutes a separate offense. Each offense may be subject to a civil penalty of not more than $ 10,000.

Chrysler urges us to hold that a misbuilt vehicle is covered by a certificate of conformity if it meets federal emission standards. The United States asks us to affirm the district court's holding. Evaluation of the merits of these contentions demands an understanding of the structure of the Act. Section 206(a)(1) [7] of the Act requires EPA to test, or have tested, any new motor [**5] vehicle or motor vehicle engine to determine whether the vehicle conforms to emission standards set out in section 202. [8] The tests are begun after a manufacturer submits an application for certification. The application contains a list of vehicle parameters and specifications that reasonably may be expected to affect the output of emissions. The EPA tests two types of prototype vehicles. "Durability" vehicles are tested to establish the deterioration of emission controls when the automobile is driven for 50,000 miles. "Data" vehicles are tested to determine the level of emissions when the automobile is run for 4,000 miles. If the tests show that the vehicle will meet federal standards, EPA will issue a certificate of conformity. Joint Appendix at 42-43.

7. *42 U.S.C. § 1857f-5(a)(1) (1976)* (as amended *42 U.S.C.A. § 7525 (1977)*).

8. *42 U.S.C. § 1857f-1 (1976)* (as amended *42 U.S.C.A. § 7521 (1977)*). Section 202(a)(1) provides that the Administrator of the EPA "shall by regulation prescribe . . . standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles . . . which in his judgment causes or contributes to, or is likely to cause or to contribute to, air pollution which endangers the public health or welfare."

[**6] A certificate of conformity is, in effect, a license that allows an automobile manufacturer to sell vehicles to the public. Under section 203(a)(1), the manufacturer may only distribute vehicles that are "covered" by a certificate of conformity. Section 203(a)(1) also allows EPA to promulgate regulations governing the issuance and effect of such certificates. Accordingly, EPA has determined that a certificate of conformity "covers only those new motor vehicles which conform, in all material respects, to the design specifications that applied to those vehicles described in the application for certification." 40 C.F.R. § 85.074-30(a)(2) (1976). The language of the regulation and applicable statutes, taken together, explicitly commands that each vehicle conform to design specifications. Nothing indicates that compliance with emission control standards is to be the controlling standard.

EPA, in spite of its emphasis on "design specifications," does not contend that every misbuilt vehicle constitutes a violation of section 203(a)(1). The district court adopted the government's position that an automobile was "materially" different if the difference in parts reasonably may be expected [**7] to affect emission controls. Judge Hart's test for materiality properly places maximum emphasis on congressionally mandated prototype testing. Adoption of [*961] Chrysler's approach, on the other hand, would allow a manufacturer to sell vehicles without certificates of conformity if he could later prove that they meet the applicable emission standards. This result would frustrate clear congressional intent, as expressed in

sections 203 and 206, that vehicles pass emission tests Before they may be sold to the public. We do not believe that the Congress that provided for mandatory premarketing certification, and for civil penalties for the sale of each vehicle not covered by a certificate of conformity, would have favored use of a test that conceivably could subject every automobile to emission tests after manufacture and sale.

As this court previously has stated, "our duty is to favor (a statutory) interpretation which would render the statutory design effective in terms of the policies behind its enactment and to avoid an interpretation which would make such policies more difficult of fulfillment, particularly where, as here, that interpretation is consistent with the plain [**8] language of the statute." *National Petroleum Refiners Association v. FTC, 157 U.S.App.D.C. 83, 100, 482 F.2d 672, 689 (1973)*, Cert. denied, *415 U.S. 951, 94 S. Ct. 1475, 39 L. Ed. 2d 567 (1974)*. In view of the clear language of the statutes, the regulations, and the policies favoring presale certification, the district court correctly held that where one or more parts erroneously installed in a vehicle are intimately related to and reasonably may be expected to affect emission controls, such vehicle is not covered by the vehicle's certificate of conformity.

Chrysler also argues that EPA, by waiving federal preemption of California emission controls standards, is precluded from seeking civil penalties with regard to twenty-five of the thirty-seven vehicles that were manufactured pursuant to California regulations and sold in California. See Brief for Appellant Chrysler Corporation at 37-40. Section 209(a) of the Act [9] provides that no state may enforce its own emission controls standards. Section 209(b) [10] gives EPA authority, however, to waive the applicability of section 209. Chrysler would have us read the waiver of the prohibition of state action [**9] [11] as a waiver of federal authority. We find no basis in precedent or logic for Chrysler's position. Federal preemption of state law displaces state authority. The decision not to preempt simply allows both federal and state authorities to regulate emission controls.

9. *42 U.S.C. § 1857f-6a(a) (1976)* (as amended *42 U.S.C.A. § 7543(a) (1977)*).

10. *42 U.S.C. § 1857f-6a(b) (1976)* (as amended *42 U.S.C.A. § 7543(b) (1977)*).

11. See *37 Fed.Reg. 8128 (1972)*.

Accordingly, the decision of the district court is

Affirmed.

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IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc., Defendants.	Civil Action No.

COMPLAINT

The United States of America, by authority of the Attorney General of the United States and at the request of the Administrator of the United States Environmental Protection Agency ("EPA"), files this complaint and alleges as follows:

NATURE OF ACTION

1. This is a civil action brought pursuant to Sections 204 and 205 of the Clean Air Act ("Act"), 42 U.S.C. §§ 7523 and 7524, for injunctive relief and the assessment of civil penalties against Volkswagen AG, Audi AG, Volkswagen Group of America, Inc. ("VWoA"), Volkswagen Group of America Chattanooga Operations, LLC ("VWoA Chattanooga"), Dr. Ing. h.c. F. Porsche AG ("Porsche AG"), and Porsche Cars North America, Inc. (collectively, "VW") for violations of the Act and regulations promulgated thereunder.

JURISDICTION AND VENUE

2. This Court has jurisdiction over the subject matter of and the parties to this action pursuant to Sections 203, 204, and 205 of the Act, 42 U.S.C. §§ 7522, 7523, and 7524, and 28 U.S.C. §§ 1331, 1345, and 1355.

3. This Court has personal jurisdiction over Defendant Volkswagen AG under Mich. Comp. Laws § 600.705 because Volkswagen AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Defendant Volkswagen AG is consistent with due process.

4. Among other things, Defendant Volkswagen AG interacts with Defendant VWoA, its wholly-owned subsidiary, which has an office in Auburn Hills, Michigan and this judicial district, by regularly submitting information to VWoA necessary for VWoA to complete the required applications to obtain certificates of conformity ("COCs") for a significant number of the vehicles Volkswagen AG sells in the United States. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with its wholly-owned subsidiary, Volkswagen AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Volkswagen AG has also attended meetings at, and had other communications with, EPA's Ann Arbor, Michigan Office of Transportation and Air Quality ("OTAQ"), the EPA office in charge of issuing COCs. Further, Volkswagen AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

5. This Court has personal jurisdiction over Defendant VWoA under Mich. Comp. Laws § 600.705 because it transacts business in Michigan. In addition, this Court's exercise of

VW FOIA, EPA 06/20/2017 2017-FFP_037177

jurisdiction over VWoA is consistent with due process.

6. Among other things, VWoA has an Engineering and Environmental Office in Auburn Hills, Michigan from which it interacts with EPA OTAQ in connection with obtaining many of the COCs for vehicles sold in the United States, including many of the light duty diesel vehicles addressed in this Complaint. Further, VWoA delivered or arranged for delivery of many of the vehicles addressed in this Complaint, within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

7. This Court has personal jurisdiction over Defendant Audi AG under Mich. Comp. Laws § 600.705 because Audi AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Audi AG is consistent with due process.

8. Among other things, Audi AG has interacted with VWoA's Auburn Hills, Michigan office by regularly submitting information to VWoA's Auburn Hills office necessary for VWoA to complete the required applications to obtain COCs for the vehicles that Audi AG sells in the United States, including the light duty diesel vehicles addressed in this Complaint. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with VWoA, Audi AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Audi AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Audi AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

9. This Court has personal jurisdiction over Defendant Volkswagen Group of America

VW FOIA, EPA 06/20/2017 2017-FFP_037178

Chattanooga Operations, LLC, under Mich. Comp. Laws § 600.705 because VWoA Chattanooga transacts business in Michigan. In addition, this Court's exercise of jurisdiction over VWoA Chattanooga is consistent with due process.

10. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, VWoA is the corporate parent of VWoA Chattanooga; VWoA Chattanooga manufactures certain Passats; VWoA Chattanooga interacts with VWoA, in connection with vehicle manufacturing and other matters; in connection with this and other interactions with its parent company, VWoA Chattanooga has attended meetings at VWoA's Auburn Hills, Michigan office and/or corresponded, telephoned and otherwise communicated with VWoA's Auburn Hills office. Further, VWoA Chattanooga delivered or arranged for delivery of its cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

11. This Court has personal jurisdiction over Defendant Porsche AG under Mich. Comp. Laws § 600.705 because Porsche AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche AG is consistent with due process.

12. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche AG has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche AG has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor,

VW FOIA, EPA 06/20/2017 2017-FFP_037179

Michigan. Further, Porsche AG delivered or arranged for delivery of Porsche cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

13. This Court has personal jurisdiction over Defendant Porsche Cars North America, Inc. under Mich. Comp. Laws § 600.705 because Porsche Cars North America, Inc. transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche Cars North America, Inc. is consistent with due process.

14. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche Cars North America, Inc. has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche Cars North America, Inc. has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche Cars North America, Inc. has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Porsche Cars North America, Inc. delivered or arranged for delivery of Porsche cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

15. Venue is proper in this jurisdiction pursuant to Sections 204 and 205 of the Act, 42 U.S.C. §§ 7523 and 7524, because violations occurred in this judicial district and VWoA has a corporate office within this judicial district.

VW FOIA, EPA 06/20/2017 2017-FFP_037180

DEFENDANTS

16. Volkswagen AG is a publicly-held German corporation.

17. Volkswagen AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

18. Volkswagen AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

19. Volkswagen Group of America, Inc. is incorporated under the laws of the State of New Jersey, and is a wholly-owned subsidiary of Volkswagen AG.

20. Volkswagen Group of America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

21. Volkswagen Group of America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

22. Volkswagen Group of America Chattanooga Operations, LLC is incorporated under the laws of the State of Tennessee, and is a wholly-owned subsidiary of VWoA.

23. Volkswagen Group of America Chattanooga Operations, LLC is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

24. Volkswagen Group of America Chattanooga Operations, LLC is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

25. Audi AG is a German corporation, and is approximately 99.55% owned by Volkswagen AG.

26. Audi AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

VW FOIA, EPA 06/20/2017 2017-FFP_037181

27. Audi AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

28. Porsche AG is a German corporation, and is wholly-owned by Volkswagen AG.

29. Porsche AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

30. Porsche AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

31. Porsche Cars North America, Inc. is a Delaware corporation, and is a wholly-owned subsidiary of Porsche AG.

32. Porsche Cars North America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

33. Porsche Cars North America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

34. At all times relevant to this action, VW was engaged in the business of manufacturing new motor vehicles, and selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing (or causing the foregoing with respect to) these vehicles in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_037182

STATUTORY AND REGULATORY BACKGROUND

35. This action arises under Title II of the Act, as amended, 42 U.S.C. § 7521 *et seq.*, and the regulations promulgated thereunder, which aim to protect human health and the environment by reducing emissions of nitrogen oxides ("NOx") and other pollutants from mobile sources of air pollution, including new motor vehicles.

36. NOx is a family of highly reactive gases that play a major role in the atmospheric reactions with volatile organic compounds that produce ozone in the atmosphere. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Breathing ozone can also worsen bronchitis, emphysema, and asthma, and can lead to premature death. Children are at greatest risk of experiencing negative health impacts from exposure to ozone. Additionally, recent scientific studies indicate that the direct health effects of NOx are worse than previously understood, including respiratory problems, damage to lung tissue, and premature death.

37. Section 202(a) of the Act, 42 U.S.C. § 7521(a), requires EPA to promulgate emissions standards for new motor vehicles for NOx, and other air pollutants.

38. 40 C.F.R. Part 86 sets emission standards and test procedures for light-duty motor vehicles, including emission standards for NOx. *See* 40 C.F.R. § 86.1811-04.

A. Certificates of Conformity and Prohibition on Uncertified Motor Vehicles

39. Light-duty vehicles must satisfy emission standards for certain air pollutants. 40 C.F.R. §§ 86.1811-04, 86.1811-09, 86.1811-10. EPA administers a certification program to ensure that every new motor vehicle introduced into United States commerce satisfies applicable emission standards. 42 U.S.C. § 7521. Under this program, EPA issues COCs and thereby

VW FOIA, EPA 06/20/2017 2017-FFP_037183

regulates the introduction of new motor vehicles into United States commerce.

40. To obtain a COC, a manufacturer must submit an application to EPA for each model year and for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1843-01. A test group is comprised of vehicles with similar emissions profiles for pollutants regulated under the Act. *See, e.g.,* 40 C.F.R. §§ 86.1803-01, 86.1827-01.

41. Vehicles are covered by a COC only if the vehicles are as described in the manufacturer's application for the COC "in all material respects." 40 C.F.R. § 86.1848-10(c)(6).

42. EPA issues COCs "upon such terms . . . as [the Administrator] may prescribe." 42 U.S.C. § 7525(a)(1); *see also* 40 C.F.R. § 86.1848-01(b) (authorizing EPA to issue COCs on any terms that are necessary and appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

43. Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), prohibits manufacturers of new motor vehicles from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or any person from importing into the United States any new motor vehicle not covered by a COC issued by EPA under regulations prescribed by the Act governing vehicle emission standards. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

B. Prohibition on Defeat Devices and Tampering

44. Each COC application must include, among other things, a list of all auxiliary emission control devices ("AECDs") installed on the vehicles. 40 C.F.R. § 86.1844-01(d)(11).

45. An AECD is "any element of design which senses temperature, vehicle speed, engine [revolutions per minute], transmission gear, manifold vacuum, or any other parameter for

VW FOIA, EPA 06/20/2017 2017-FFP_037184

the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.1803-01.

46. An element of design is "any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine." 40 C.F.R. § 86.1803-01.

47. Each COC application must also include "a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device." 40 C.F.R. § 86.1844-01(d)(11).

48. A motor vehicle containing an AECD that can reasonably be expected to affect emission controls and is not disclosed or justified in the COC application does not conform in all material respects with the COC application, and is therefore not covered by the COC.

49. A "defeat device" is an AECD "that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . . . ." 40 C.F.R. § 86.1803-01.

50. Motor vehicles equipped with defeat devices cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86.1809-01, 86.1809-10, 86.1809-12.

VW FOIA, EPA 06/20/2017 2017-FFP_037185

51. Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." *See also* 40 C.F.R. § 86.1854-12(a)(3)(ii).

52. Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), prohibits any person from removing or rendering inoperative any device or element of design installed on a motor vehicle in compliance with the regulations promulgated under Title II of the Act prior to its sale and delivery to the ultimate purchaser.

53. It is also a violation to cause any of the acts set forth in Section 203(a)(3). 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

C. Reporting Requirements

54. Section 208(a) of the Act, 42 U.S.C. § 7542(a), requires that "[e]very manufacturer of new motor vehicles . . . establish and maintain records, perform tests . . . make reports, and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting in compliance" with Part A of Title II of the Act.

55. Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), prohibits any person from failing or refusing to make reports or provide information to EPA pursuant to Section 208 of the

VW FOIA, EPA 06/20/2017 2017-FFP_037186

Act, 42 U.S.C. § 7542. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

GENERAL ALLEGATIONS

56. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix A to this Complaint ("2.0L Subject Vehicles").

57. Each of the 2.0L Subject Vehicles is equipped with a 2.0 liter diesel engine, and is part of model years 2009-2015.

58. In total, approximately 500,000 2.0L Subject Vehicles were sold in the United States.

59. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for the 2.0L Subject Vehicles.

60. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix B to this Complaint ("3.0L Subject Vehicles").

61. Each of the 3.0L Subject Vehicles is equipped with a 3.0 liter diesel engine, and is part of model years 2009-2016.

62. In total, approximately 80,000 3.0L Subject Vehicles were sold in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_037187

63. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for certain 3.0L Subject Vehicles.

64. Porsche Cars North America, Inc. submitted to EPA, on behalf of itself, and representing Porsche AG, the applications for COCs for certain 3.0L Subject Vehicles.

65. Each COC issued by EPA during the time period relevant to this Complaint states on its face that the certificate covers only those new motor vehicles that conform, in all material respects, to the design specifications provided to EPA in the certificate application for such vehicle.

66. Each application for a COC constitutes a "report [and/or] information the Administrator may reasonably require . . ." to assess compliance with the Act, within the meaning of Section 208(a) of the Act, 42 U.S.C. § 7542(a).

A. The 2.0L Subject Vehicles

67. Each 2.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 2.0L Subject Vehicle.

68. The electronic control module ("ECM") of the 2.0L Subject Vehicles contains software logic and/or calibrations that sense when the vehicle is being tested for compliance with applicable emission standards, based on various inputs including the position of the steering wheel, vehicle speed, the duration of the engine's operation, and barometric pressure. These inputs precisely track the parameters of the federal test procedure ("FTP") and other test cycles used for emission testing required to obtain a COC.

VW FOIA, EPA 06/20/2017 2017-FFP_037188

69. During FTP emission testing, the 2.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration that VW has referred to as the "dyno calibration" (referring to the equipment used in emissions testing, called a dynamometer). At all other times during normal vehicle operation, the 2.0L Subject Vehicles' ECM software run a separate "road calibration" that reduces the effectiveness of the emission control system. In other words, the 2.0L Subject Vehicles' ECM software tracks the parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

70. The COC applications for the 2.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 2.0L Subject Vehicles' COC applications.

71. The 2.0L Subject Vehicles therefore are not covered by a COC.

72. This dual-calibration system results in increased NOx emissions by a factor of up to 40 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

73. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

74. VW entities including at least Volkswagen AG, VWoA and Audi AG knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

VW FOIA, EPA 06/20/2017 2017-FFP_037189

75. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

B. The 3.0L Subject Vehicles

76. Each 3.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 3.0L Subject Vehicles.

77. The ECM of the 3.0L Subject Vehicles contains software logic and/or calibrations that cause the vehicle to perform differently when the vehicle is being tested for compliance with applicable emission standards, based on various inputs that appear to track the FTP and/or other test cycles used for emission testing required to obtain a COC, than when the vehicle is in normal operation and use.

78. During FTP emission testing, the 3.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration referred to as the "temperature conditioning mode." At other times during normal vehicle operation, the 3.0L Subject Vehicles' ECM software run a separate "normal mode" that reduces the effectiveness of the emission control system. In other words, the 3.0L Subject Vehicles' ECM software tracks certain parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

79. The COC applications for the 3.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The

VW FOIA, EPA 06/20/2017 2017-FFP_037190

undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 3.0L Subject Vehicles' COC applications.

80. The 3.0L Subject Vehicles therefore are not covered by a COC.

81. This dual-calibration strategy results in increased NOx emissions by a factor of up to 9 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

82. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

83. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG and Porsche Cars North America, Inc. knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

84. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_037191

C. The Investigations and Concealment

85. In or about May 2014, West Virginia University's Center for Alternative Fuels, Engines & Emissions ("WVU") published results of a study commissioned by the International Council on Clean Transportation, and conducted in collaboration with the California Air Resources Board ("CARB"), that found on-road NOx emissions from two 2.0L VW light duty diesel vehicles (2012 Jetta and 2013 Passat) were significantly higher than the applicable emission standards established by EPA regulations.

86. Beginning in or about May 2014 through the present, CARB, in coordination with EPA, has investigated the reasons for the high in-use emissions, repeatedly questioning representatives from VWoA and Volkswagen AG about WVU's findings.

87. In or about October 2014, those VW entities responded that the increased emissions from the vehicles studied by WVU were attributable to various yet-to-be-identified technical issues with the after treatment emission control systems and in-use conditions not represented by the FTP.

88. VW entities including at least VWoA represented to regulators that the vehicles' software could be optimized to address the excess NOx emissions issue and issued a recall in December 2014 and March 2015 for 2.0L vehicles to address the excess emissions issue.

89. From approximately December 2014 through the present, CARB, in coordination with EPA, conducted its own testing to further investigate the reasons behind the high NOx emissions observed on VW's 2.0L light duty diesel vehicles during real world driving conditions, and to investigate the effectiveness of the recall action. This on-road and laboratory testing showed limited reduction in the rates of emission of NOx of the recalled vehicles, and also

VW FOIA, EPA 06/20/2017 2017-FFP_037192

revealed that the vehicles exhibited different behaviors during real world driving conditions than during FTP emission testing.

90. During the course of this investigation, VW entities including at least VWoA and Volkswagen AG suggested a number of potential technical issues and in-use conditions that might explain the higher emission test results, but none of those issues adequately explained why the 2.0L Subject Vehicles behaved differently while operating on the FTP test cycles versus while being driven on the road.

91. In or about September 2015, VW entities including at least VWoA and Volkswagen AG admitted that these 2.0L motor vehicles contained a defeat device in the form of a software algorithm or algorithms that detect when the vehicle is undergoing emission testing.

92. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 2.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least VWoA and Volkswagen AG.

93. VW entities including at least Volkswagen AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 2.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

94. On October 8, 2015, Mr. Michael Horn, VWoA President and Chief Executive Officer, testified before the United States House of Representatives Subcommittee on Oversight and Investigations Committee on Energy and Commerce, and admitted that VWoA and

VW FOIA, EPA 06/20/2017 2017-FFP_037193

Volkswagen AG's representations to EPA and CARB that the increased NOx emissions from the 2.0L Subject Vehicles were due to technical issues were false.

95. During his October 8, 2015 testimony, Mr. Horn further admitted that the installation of the "defeat device" in the 2.0L Subject Vehicles was a knowing and willful decision to deceive.

96. Even after EPA issued its September 18, 2015 Notice of Violation to Volkswagen AG, Audi AG, and VWoA, and Mr. Horn's testimony before Congress, VW failed to come forward and reveal to regulators that the 3.0L Subject Vehicles contain one or more undisclosed AECDs, including the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode." The existence of this dual calibration strategy was uncovered only as a result of EPA and CARB's diligence.

97. On November 2, 2015, EPA issued a Notice of Violation to Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc., citing violations of the Act related to the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode," and the resultant excess emissions in certain 3.0L light duty diesel vehicles.

98. VW entities including at least Volkswagen AG immediately issued a statement denying that software had been installed in 3.0L light duty diesel vehicles to alter emissions in a prohibited manner.

99. On or about November 23, 2015, VW entities including at least Volkswagen AG and Audi AG admitted that the 3.0L Subject Vehicles contain three undisclosed AECDs, one of which – the temperature conditioning mode – is regarded as a defeat device under the Act and implementing regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_037194

100. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 3.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least Volkswagen AG and Audi AG.

101. VW entities including at least Audi AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 3.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

FIRST CLAIM FOR RELIEF
(Section 203(a)(1): Sale, Offer for Sale, Introduction or Delivery for Introduction into Commerce, or Import of New Motor Vehicles Not Covered by COCs)

102. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

103. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 500,000 2.0L Subject Vehicles that were not covered by COCs (or caused any of the foregoing) because the 2.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 2.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 2.0L Subject Vehicles' emission controls.

104. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 80,000 3.0L Subject Vehicles that were not covered by COCs (or

VW FOIA, EPA 06/20/2017 2017-FFP_037195

caused any of the foregoing) because the 3.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 3.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 3.0L Subject Vehicles' emission controls.

105. VW violated Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), by selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing new motor vehicles that were not covered by a COC, or by causing any of the foregoing acts.

106. Each such violation of Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), is a separate offense with respect to each new motor vehicle.

107. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW is liable for injunctive relief and civil penalties of up to $32,500 per vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

SECOND CLAIM FOR RELIEF
(Section 203(a)(3)(B): Manufacture, Sale, Offer for Sale, or Installation of Defeat Device)

108. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

109. VW entities including at least Volkswagen AG, VWoA and Audi AG manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended for use with, or as part of, motor vehicles, including the road-calibration AECDs installed on the 2.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 2.0L

VW FOIA, EPA 06/20/2017 2017-FFP_037196

Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Volkswagen AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

110. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended or use with, or as part of, motor vehicles, including the normal mode calibration AECDs installed on the 3.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 3.0L Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Audi AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

111. VW entities including at least Volkswagen AG and Audi AG violated Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), by manufacturing, selling, offering for sale, or installing "defeat devices" on new motor vehicles, or by causing any of the foregoing acts.

112. Each part or component that constitutes a "defeat device" manufactured, sold, offered for sale, or installed on new motor vehicles (or the causing thereof) is a separate violation of Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B).

113. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG and Audi AG are liable for injunctive relief and civil penalties of up to $2,750 per part or component that constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $3,750 per part or component that

VW FOIA, EPA 06/20/2017 2017-FFP_037197

constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

THIRD CLAIM FOR RELIEF
(Section 203(a)(3)(A): Tampering)

114. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

115. The road-calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

116. The normal mode calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

117. VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the road-calibration AECDs in the 2.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

118. VW entities including at least Volkswagen AG, Audi AG and Porsche AG violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the normal mode calibration AECDs in the 3.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

VW FOIA, EPA 06/20/2017 2017-FFP_037198

119. Each 2.0L Subject Vehicle equipped with the road-calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

120. Each 3.0L Subject Vehicle equipped with the normal mode calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and Porsche AG of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

121. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG and Porsche AG are liable for injunctive relief and civil penalties of up to $32,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

FOURTH CLAIM FOR RELIEF
(Section 203(a)(2): Reporting Violations)

122. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

123. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to disclose the existence of the road-calibration and/or other AECDs in the COC applications for the 2.0L Subject Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

124. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to disclose the existence of the normal mode calibration and/or other AECDs in the COC applications for the 3.0L Subject

VW FOIA, EPA 06/20/2017 2017-FFP_037199

Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

125. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to provide a justification for the road-calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the road-calibration and/or other AECDs are not a defeat device, in the COC applications for the 2.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

126. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to provide a justification for the normal mode calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the normal mode calibration and/or other AECDs are not a defeat device, in the COC applications for the 3.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

127. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to disclose one or more AECDs in a COC application for a test group of new motor vehicles.

128. VW entities including at least Volkswagen AG, Audi AG and VWoA violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 2.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

VW FOIA, EPA 06/20/2017 2017-FFP_037200

129. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 3.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

130. Each failure to provide reports or information described above is a separate violation of Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2).

131. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. are liable for injunctive relief and civil penalties of up to $32,500 per day of violation of Section 203(a)(2) occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per day of violation for such violations occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff, the United States of America, respectfully requests that the Court provide the following relief:

a. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle not covered by a COC issued by EPA in accordance with the Act and the regulations promulgated thereunder.

b. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the

VW FOIA, EPA 06/20/2017 2017-FFP_037201

foregoing acts) any new motor vehicle equipped with an AECD, except in compliance with the Act and the regulations promulgated thereunder.

c. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle equipped with a defeat device.

d. Permanently enjoin VW from bypassing, defeating, or rendering inoperative any device or element of design installed on or in a new motor vehicle in compliance with regulations promulgated under Title II of the Act.

e. Order VW to take appropriate steps, including, but not limited to, mitigation of excess NOx emissions, to remedy the violations of Sections 203(a)(1), 203(a)(3)(A), and 203(a)(3)(B) alleged above.

f. Enter a judgment that VW is liable to the United States for civil penalties for each violation of Section 203(a) of the Act, and assess civil penalties against VW as follows:

i. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(1) of the Act;

ii. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(A) of the Act;

VW FOIA, EPA 06/20/2017 2017-FFP_037202

iii. up to $2,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $3,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(B) of the Act; and

iv. up to $32,500 per day of violation occurring before January 13, 2009, and up to $37,500 per day of violation occurring on or after January 13, 2009 for violations of Section 203(a)(2) of the Act.

g. Award the United States its costs in this action; and

h. Grant such other and further relief as the Court deems just and proper.

VW FOIA, EPA 06/20/2017 2017-FFP_037203

Respectfully submitted,

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VW FOIA, EPA 06/20/2017 2017-FFP_037204

United States v. Volkswagen AG, et al.

APPENDIX A TO COMPLAINT

Identification of the 2.0L Subject Vehicles

Model Year	EPA Test Group	Vehicle Make and Model(s)
2009	9VWXV02.035N	VW Jetta, VW Jetta Sportwagen
2009	9VWXV02.0U5N	VW Jetta, VW Jetta Sportwagen
2010	AVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2011	BVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U4S	VW Passat
2013	DVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2013	DVWXV02.0U4S	VW Passat
2014	EVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2014	EVWXV02.0U4S	VW Passat
2015	FVGAV02.0VAL	VW Beetle, VW Beetle Convertible, VW Golf, VW Golf Sportwagen, VW Jetta, VW Passat, Audi A3

United States v. Volkswagen AG, et al.

APPENDIX B TO COMPLAINT

Identification of the 3.0L Subject Vehicles

Model Year	EPA Test Group(s)	Vehicle Make and Model(s)
2009	9ADXT03.03LD	VW Touareg, Audi Q7
2010	AADXT03.03LD	VW Touareg, Audi Q7
2011	BADXT03.02UG BADXT03.03UG	VW Touareg Audi Q7
2012	CADXT03.02UG CADXT03.03UG	VW Touareg Audi Q7
2013	DADXT03.02UG DADXT03.03UG DPRXT03.0CDD	VW Touareg Audi Q7 Cayenne Diesel
2014	EADXT03.02UG EADXT03.03UG EPRXT03.0CDD EADXJ03.04UG	VW Touareg Audi Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2015	FVGAT03.0NU2 FVGAT03.0NU3 FPRXT03.0CDD FVGAJ03.0NU4	VW Touareg Audi: Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2016	GVGAT03.0NU2 GPRXT03.0CDD GVGAJ03.0NU4	VW Touareg Cayenne Diesel A6 quattro, A7 quattro,A8, A8L, Q5

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Policy Analysis

Damages and expected deaths due to excess NOx emissions from 2009-2015 Volkswagen diesel vehicles

Stephen P. Holland, Erin Mansur, Nicholas Muller, and Andrew Yates

Environ. Sci. Technol., **Just Accepted Manuscript** • DOI: 10.1021/acs.est.5b05190 • Publication Date (Web): 31 Dec 2015

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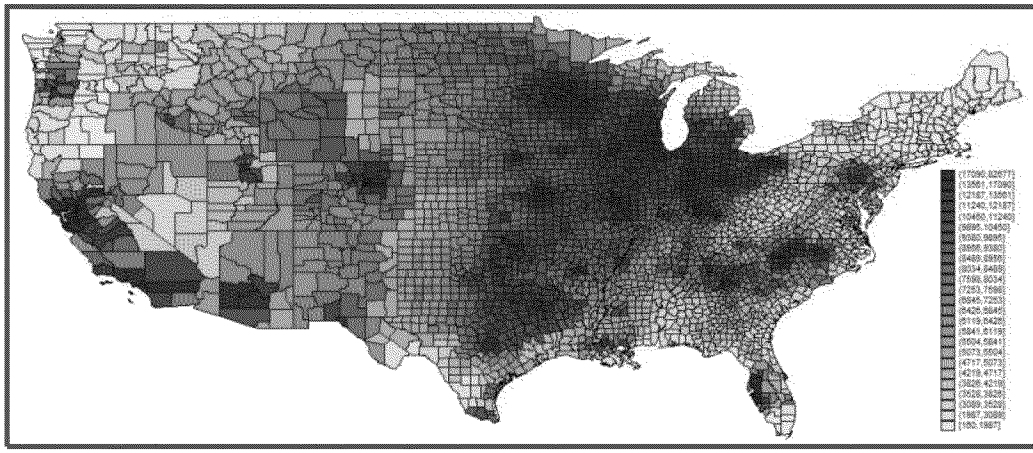
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Excess꿹□ηNOx꿹□η Excess꿹□ηExpected꿹□η Excess꿹□ηDamages꿹□η
Emissions꿹□η Deaths꿹□η

45,093꿹□ηtons꿹□η 46.14꿹□η $430꿹□ηmillion꿹□η

ACS Paragon Plus Environment

Damages and expected deaths due to excess NO_X emissions from 2009-2015 Volkswagen diesel vehicles

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December 30, 2015

Abstract

We estimate the damages and expected deaths in the United States due to excess emissions of NO_X from 2009-2015 Volkswagen diesel vehicles. Using data on vehicle registrations and a model of pollution transport and valuation, we estimate excess damages of $430 million and 46 excess expected deaths. Accounting for uncertainty about emissions gives a range for damages from $350 million to $500 million, and a range for excess expected deaths from 40 to 52. Our estimates incorporate significant local heterogeneity: e.g., Minneapolis has the highest damages despite having fewer noncompliant vehicles than thirteen other cities. Our estimated damages greatly exceed possible benefits from reduced CO_2 emissions due to increased fuel economy.

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VW FOIA, EPA 06/20/2017 2017-FFP_037210

1 Introduction

Since the 1970s the United States Environmental Protection Agency (EPA) has regulated air pollution emissions from vehicles. Vehicles must first pass emissions tests to be certified for sale, and they generally must also pass annual inspections for continued use. This two-pronged approach might seem sufficient. However, recent events reveal the vehicle manufacturers may not be in compliance.

In September 2015, the EPA issued a notice of violation to the Volkswagen Group of America concerning excess emissions from certain 2009-2015 model year Volkswagen diesel powered vehicles (EPA 2015). These vehicles utilized a defeat device that detects when the vehicle is under emissions testing and lowers NO_X emissions during the test. More specifically, Volkswagen installed software in the electronic control module that analyzed various data including \the position of the steering wheel, vehicle speed, the duration of engine's operation, and barometric pressure" (EPA 2015). When the data indicated that it was likely that the vehicle was undergoing emissions testing, then the software temporarily increased the performance of the emission control system to reduce emissions from the level found in normal operation. A scientific study of two vehicles equipped with the defeat device determined that on-road emissions of NO_X were significantly higher than the EPA standard (Thompson et al. 2014). These defeat devices have been installed in approximately 480,000 Volkswagen diesel vehicles sold in the U.S. (EPA 2015). We estimate the damages and expected deaths due to excess NO_X emissions, accounting for the fact that these effects vary depending how far, and where, the vehicles are driven. Additional Volkswagen vehicles may also have defeat devices (the Supporting Information discusses the ongoing investigation).

2 Data and Methods

Volkswagen employs two different exhaust after-treatment systems as part of the overall NO_X emissions control system in its diesel engines. The lean NO_X trap (LNT) employs a special coating in the catalytic converter to absorb NO_X. The selective catalytic reduction (SCR) injects urea into the catalytic converter where it neutralizes the NO_X. Thompson et

VW FOIA, EPA 06/20/2017 2017-FFP_037211

al. (2014) study actual on-road emissions of NO_X from Volkswagen vehicles equipped with these technologies as well as one other vehicle (Table 1). The two Volkswagen diesel vehicles emit significantly more NO_X than the EPA standard under all driving routes. (The standard specifies NO_X, but the ratio of NO_2 to NO may play an important role. See Jacobsen et al. 2004.) The vehicle with LNT technology averaged 1.235 g/km when driven in urban areas and 0.614 when driven on highways. For the vehicle with SCR technology, the values are 0.757 and 0.334, respectively. The EPA standard is 0.043. In contrast, the third vehicle tested, BMW, is close to the standard.

Table 1: NO_X emissions during Driving Tests

Route	Vehicle A 2012 Jetta Sportwagen LNT	Vehicle B 2013 Passat SCR	Vehicle C 2012 BMW X5 xDrive 35d SCR
Highway	0.614 (0.283)	0.344 (0.096)	0.048
Urban (LA)	0.989 (0.114)	0.809 (0.075)	0.070 (0.041)
Urban (San Diego)	1.480 (0.335)	0.675 (0.057)	
Urban (San Fran)		0.815	0.053 (0.021)
Average Urban	1.235 (0.350)	0.757 (0.088)	0.062
EPA Standard	0.043	0.043	0.043

Notes: Average NO_X emissions in grams per km (standard deviations in parentheses) during driving tests. All data except Average Urban row is from Table 4.3 in Thompson et al. 2014. Average Urban row is calculated from the three urban tests. LNT stands for lean NO_X trap. SCR stands for urea based selective catalytic reduction. EPA standard is 0.043 g/km. Vehicles were not identified in Thompson et al. (2014), but they were identified in the EPA notice of violation letter. We verified this identification by cross referencing fuel economy data. Numbers in bold are used in our calculations.

To determine the geographic distribution of emissions from Volkswagen vehicles, we need an estimate of how far, and where, the vehicles were driven. Information from the 2009 National Household Transportation Survey and other Federal Highway Administration (FHWA) data reveal three salient features of miles driven per vehicle. First, miles driven by the average vehicle changes over time. Second, newer vehicles are driven more miles per year than older vehicles. Third, miles driven differs across states.

Combining the first two features enables us to determine the number of miles driven per year by the model year, as shown in Table 2. See the Supporting Information for details of this calculation. As a consistency check on the miles driven calculation, we also collected

VW FOIA, EPA 06/20/2017 2017-FFP_037212

actual odometer readings for used Volkswagen diesels from Cars.com, which is a popular used car internet site. Compared with the FHWA data, the odometer miles are a bit larger for older model years, and a bit smaller for more recent model years (Table 2). Part of the difference between these measures is that the estimates based on FHWA data use the full 2015 calendar year, while the odometer reading is as of September 30, 2015 for all model years.

Table 2: Two Estimates of Miles Driven by Model Year

Model Year	FHWA data	Used Car Odometer
2009	95,710	103,425
2010	84,929	90,752
2011	72,322	78,099
2012	59,765	61,197
2013	46,315	41,361
2014	30,878	21,724
2015	15,438	7,122

Notes: Used car odometer data taken from Cars.com on September 30, 2015 for used Volkswagen vehicle models and years listed in Table 3. The scope of the search was the entire United States.

The values in Table 2 are estimates of the average number of miles driven by an average vehicle in the average location in the United States. We use additional FHWA data to incorporate the third salient feature of miles driven (it differs across states). For each state we determine the increase or decrease in miles per vehicle relative to the U.S. average (see Table S2 in the Supporting Information). For example, vehicles driven in Alabama are driven 1.15 times farther than the average vehicle.

To answer the question of where the vehicles were driven, we use registration data obtained from IHS Automotive. These provide a snapshot of registrations for all Volkswagen diesel vehicles with the defeat device (Table 3). The EPA press release stated that the defeat devices were installed in 482,000 Volkswagen diesel vehicles sold in the United States. The IHS data indicates that 447,549 Volkswagen diesel vehicles with the appropriate model and model years were registered as of July 1, 2015. One reason for this discrepancy is that some of the vehicles would have been retired from use over time. Another is that some of the

VW FOIA, EPA 06/20/2017 2017-FFP_037213

vehicles were registered after July 1, 2015. With the exception of the Passat, vehicles in the 2009-2014 model years were equipped with the LNT technology. For the 2015 model year, all vehicles were equipped with a modified SCR technology. We do not have emission testing results for the modified SCR technology, so we assume emissions are the same as with the previous SCR technology. The number of miles driven by 2015 model year vehicles is small relative to the overall miles driven by all vehicles in this study, so the effect of any inaccuracy in this assumption is likely to be small.

The registration data give the county of registration for each vehicle. The vast majority of the vehicles (86 percent) are registered in urban counties. The states and Metropolitan Statistical Area (MSAs) with the most registrations are given in Table 4.

Table 3: Volkswagen Diesel Registrations and NO_X Technology

	Model Years							
Model	2009	2010	2011	2012	2013	2014	2015	Total
Audi A3		2067	3602	3730	1765		2041‡	13,205
Beetle					6327	3821	467‡	10,615
Golf		4203	8682	10,820	8397	3100	7263‡	42,465
Golf Sportwagen							2339‡	2,339
Jetta	35,941	50,843	40,850	49,807	49,007	42197	8451‡	277,096
Passat				17,949‡	39,005‡	32,442‡	12,433‡	101,829
Total	35,941	57,113	53,134	82,306	104,501	81,560	32,994	447,549

Notes: ‡ indicates SCR technology, all other vehicless have LNT technology. Vehicle and model year information from EPA 2015. Registrations are as of July 1, 2015, and are obtained from IHS Automotive. Jetta includes Jetta Sportwagen, Beetle includes Beetle convertible.

Because we only have a snapshot of the vehicle registrations, we assume a vehicle stays registered in the county for the entire period it is in service. We assume that a vehicle registered in an urban county is driven only within the counties that make up the relevant MSA, with the number of miles driven in each county determined by the distribution of VMT across the counties. Note that MSAs include suburban communities. A vehicle registered in a rural county is driven only within the rural counties of the state, again determined by relative VMT. This procedure may lead to an underestimation of damages, as vehicles from rural counties may be more likely to be driven into urban counties than the reverse. We obtained VMT per county from the EPA Motor Vehicle Emission Simulator. This procedure

VW FOIA, EPA 06/20/2017 2017-FFP_037214

allows us to determine the geographic distribution of miles driven.

Combining miles driven with the emissions rates from Table 1 gives us allowed and actual emissions (Table 4). For rural counties we use the highway values from Table 1. For urban counties we use the average urban values from Table 1. California has 65,000 registered Volkswagen diesels with defeat devices, and these vehicles have driven over 3 billion miles. If they had met the EPA standard, then they would have emitted 237 tons of NO_X. But actual emissions are estimated to be over 6000 tons. The difference between these two numbers is the excess emissions from use of the defeat devices.

We use the AP2 air pollution integrated assessment model to connect excess ground-level NO_X emissions to changes in ambient concentration of pollutants and associated deaths and monetary damages (Muller and Mendelsohn, 2009; Muller, 2011; Muller 2014). The main component of damages is human mortality, but AP2 also accounts for morbidity, crop and timber yields, degradation of buildings and material, and reduced visibility and recreation. For human mortality, AP2 uses results from Pope et al. (2002) to specify the effect of $PM_{2:5}$ exposure on adult mortality rates and results from Bell et al. (2004) to specify the effect of O_3 exposure on all-age mortality rates. We assume the NO_2:NO ratio is the same for all emission sources. Jacobsen et al. (2004) show that this may lead to a downward bias in estimated damages, because diesel vehicles may have higher ratios than gasoline vehicles.

The AP2 model employs a modified Gaussian plume air quality model to estimate annual and seasonal average air pollution concentrations (Turner, 1994; Muller and Mendelsohn, 2007). To calculate the contribution of NO_X emissions to ambient concentrations of ammonium nitrate, the model first estimates the concentrations of nitrate (NO_3) resulting from NO_X emissions by county for 2011. This calculation assumes a NO_X to NO_3 conversion rate constant of 2% per hour and dry and wet deposition velocities of 1 cm/s and 0.0003*Precipitation (cm/s), respectively. The model also calculates ambient concentrations of ammonium (NH_4) and sulfate for each county. In a given location, the model estimates the equilibrium concentrations of ammonium sulfate and ammonium nitrate by assuming that ammonium preferentially reacts with ammonium sulfate. Remaining ammonium is available to react with nitrate in order to form ammonium nitrate which is then counted as $PM_{2:5}$. Because the structure of the air quality model is Gaussian, it does not explicitly treat meteorological

VW FOIA, EPA 06/20/2017 2017-FFP_037215

Table 4: Volkswagen Diesel Registrations, Estimated Miles Driven, and NO_X Emissions

	Registrations	Miles Driven (Millions)	Allowed Emissions (Tons)	Actual Emissions (Tons)
United States	447,549	24,822	1,893	46,986
Top States				
California	64,816	3,102	237	6,268
Texas	33,588	2,289	174	4,325
Florida	25,403	1,447	110	2,832
New York	20,040	1,166	69	1,701
Pennsylvania	19,772	1,023	71	1,739
North Carolina	14,441	949	84	2,038
Illinois	19,953	944	89	2,230
Washington	18,282	885	63	1,607
Virginia	14,555	825	24	568
Maryland	12,234	712	49	1,263
Top MSAs				
Chicago, IL	11,466	545	42	1,079
Los Angeles, CA	11,025	527	40	1,087
Houston, TX	7,674	521	40	1,044
Washington, DC	9,013	520	40	1,070
Atlanta, GA	6,426	411	31	830
Seattle, WA	8,345	408	31	856
San Diego, CA	7,985	383	29	787
Portland, OR	7,366	381	29	796
Dallas, TX	5,265	369	28	744
Baltimore, MD	6,265	361	28	738
Phoenix, AZ	6,002	341	26	685
New York, NY	6,126	340	26	699
Minneapolis, MN	5,593	305	23	630
Austin, TX	4,128	292	22	601
Philadelphia, PA	5,584	288	22	592
Oakland, CA	5,809	286	22	594
San Francisco,CA	5,572	275	21	580
Riverside, CA	5,803	257	20	512
Denver, CO	4,816	255	19	531

Notes: \Registrations" are Volkswagen diesel registrations as of July 1, 2015 from IHS Automotive. \Miles driven" (in millions) is estimated miles driven by all registered vehicles based on the vintages of the vehicles and state-level driving propensity. \Allowed Emissions" is tons of NO_X which would be allowed if the vehicles performed as required by the EPA standards. \Actual Emissions" is tons of NO_X based on estimated emissions rates from Thompson et al. (2014). \Top States" and \Top MSAs" determined by miles driven.

factors such as clouds. However, the model does use meteorological data in the estimation of the Gaussian equations.

Although the AP2 employs a reduced-form approach to air quality modeling, the predictions produced by the model are strongly positively correlated with ambient $PM_{2:5}$ monitoring data. Jaramillo and Muller (2015) report a battery of test statistics for the AP2 predicted baseline concentrations. Employing the performance evaluation criteria and goals set forth in Boylan and Russell (2006), Jaramillo and Muller (2015) show that, for ammonium nitrate, AP2 predictions generate mean fractional error (MFE) of less than 0.70 from 1999 to 2011 and mean fractional bias (MFB) of less than 0.20 in absolute value. The values for 2011 are an MFE of 0.68 and an MFB of 0.10. Total $PM_{2:5}$ ultimately drives the damage estimates since particular species of PM are not inputs to the mortality dose-response functions. Here, the AP2 model performs quite well in 2011 (MFE = 0.34; MFB = -0.22). Both are well within the model performance guideline proposed by Boylan and Russell (2006).

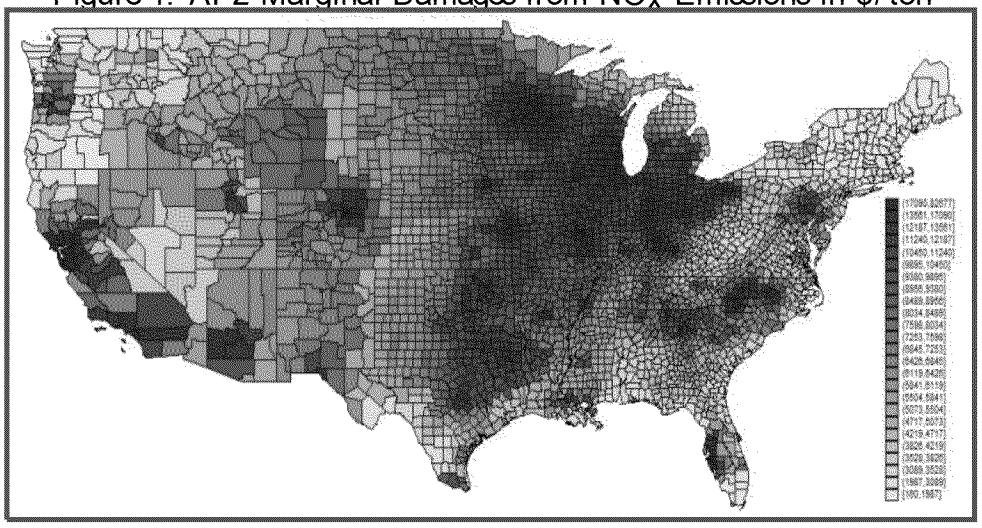
AP2 computes marginal damages by first using the 2011 EPA National Emissions Inventory (NEI) to estimate baseline concentrations of $PM_{2:5}$ and O_3. Exposures, physical effects (such as mortality risks), and monetary damages associated with baseline emissions are then estimated. Next, one ton of NO_X is added to a particular source's baseline emissions. The AP2 model then re-computes concentrations, exposures, physical effects, and monetary damages. Since the only change between the add-one-ton case and the baseline is the additional ton of NO_X, the change in damage across all counties receiving additional pollution is strictly attributable to that ton of NO_X emitted from the selected source. This difference comprises the marginal damage. Emissions are then reset to the baseline, and the AP2 model moves on to the next source location and repeats this simulation design. Figure 1, which was created by the authors from the AP2 model output, shows the full set of county-specific marginal damage estimates.

Because mortality effects dominate air pollution damages, one might expect damages to correlate with population. For NO_X this is not necessarily the case because the conditions under which NO_X forms $PM_{2:5}$ are non-linearly related to emissions of SO_2 and ammonia. NO_X damages tend to be higher nearby major sources of ammonia emissions. The area of elevated marginal damages through the Midwest, especially in Minnesota, is in part driven

VW FOIA, EPA 06/20/2017 2017-FFP_037217

by copious ammonia emissions from agricultural sources. This also explains higher marginal damages in California's Central Valley, the Carolinas, and Southeastern Pennsylvania.

Figure 1: AP2 Marginal Damages from NO_X Emissions in $/ton



We illustrate our calculation of damages and deaths due to the excess emissions of NO_X. Consider a 2010 Jetta registered in Fulton County, Georgia. The vehicle uses the LNT technology, and is driven in an urban area, so excess emissions (net of the EPA standard) in grams per mile are

$$e = (1{:}235g/km - 0{:}043g/km) \ddagger 1{:}62km/mile{:}$$

According to our FHWA data, the average 2010 vehicle has been driven 84,929 miles. From Table S2 in the Supplementary Information, we see that vehicles in Georgia are driven 1.18 times more than average. Fulton county is in the Atlanta MSA, which includes 28 counties. Let the marginal damages due to one gram of NO_X emissions (determined from AP2) in each county i in the MSA be denoted by d_i. Likewise, let the VMT in each county be denoted by v_i. Finally, let $v = P_i^{28} v_i$. Damages due to driving the vehicle over its lifetime to date is given by

$$84929(1{:}18)e \sum_{i}^{28} (d_i \ddagger v_i \sim v){:}$$

3 Results

Our baseline scenario uses FHWA data for miles driven, includes a state adjustment for the miles, uses the dose-response function for $PM_{2:5}$ given in Pope et al. (2002), and assumes that an urban vehicle is driven throughout the MSA as described above. Baseline results for allowed expected deaths and damages (what would have occurred if the vehicles had met the EPA regulations) and excess expected deaths and damages (the difference between actual and allowed) are given in Table 5. Values are expressed in 2014 dollars, and we do not discount damages across time. We find 46 excess deaths and $430 million in excess damages from driving all the vehicles with defeat devices from initial sale through 2015. These numbers are approximately 25 times their allowed counterparts. Approximately 88% of damages are due to $PM_{2:5}$. The remaining damages result from exposure to ambient O_3.

Table 5 also reports the top states and MSAs. The ranking by damages across states and MSAs largely corresponds to the ranking based on mileage in Table 4. However, the results also indicate the importance of local effects. For example, the Minneapolis MSA has the highest damages despite having fewer vehicles than thirteen other MSAs. This reflects the high marginal damages in the upper Midwest illustrated in Figure 1. Conversely, Washington, DC and New York, NY rank third and tenth in numbers of vehicles, but 28th and 49th in terms of damages, due to the low marginal damages in the Northeast. We stress that these damages and expected deaths are due to driving in the state or MSA, but do not necessarily occur there, as the pollution emitted in one place may spread and cause damages elsewhere.

We assess the sensitivity of our result to key parameters in seven additional scenarios (Table 6). First, three scenarios address our assumptions about mileage. The Odometer readings scenario employs used car odometer data rather than the FHWA data to determine miles driven by the average car. The No state adjustment scenario assumes that vehicles are driven the same amount in each state. The No MSA aggregation scenario assumes that a given vehicle is driven exclusively in the county in which it is registered. The results are not sensitive to assumptions about miles driven. Next, two additional scenarios assess assumptions in the AP2 model. The Alternative dose response scenario uses the dose response

VW FOIA, EPA 06/20/2017 2017-FFP_037219

Table 5: Damages and Expected Deaths From Excess NO_X Emissions

	Expected Deaths		Damages	
	Allowed	Excess	Allowed	Excess
United States	1.87	46.14	17.40	430.21
Top States				
California	0.54	13.95	5.30	137.13
Illinois	0.19	4.70	1.70	41.68
Texas	0.13	3.17	1.21	29.25
Minnesota	0.13	3.21	1.13	28.65
Wisconsin	0.07	1.77	0.68	16.05
North Carolina	0.07	1.70	0.65	15.50
Indiana	0.06	1.56	0.57	13.98
Arizona	0.06	1.38	0.52	13.07
Florida	0.05	1.32	0.48	11.96
Colorado	0.05	1.27	0.47	11.88
Georgia	0.05	1.11	0.41	10.00
Top MSA's				
Minneapolis, MN	0.11	2.99	1.02	26.59
Los Angeles, CA	0.10	2.50	0.99	25.80
Chicago, IL	0.10	2.57	0.91	22.74
Oakland, CA	0.09	2.36	0.85	22.26
Santa Ana, CA	0.09	2.20	0.84	21.65
San Francisco,CA	0.06	1.64	0.59	15.66
San Jose, CA	0.05	1.31	0.48	12.51
Phoenix, AZ	0.05	1.19	0.45	11.35
St. Louis, MO	0.05	1.20	0.41	10.55
Riverside, CA	0.04	0.98	0.38	9.56
Salt Lake City, UT	0.03	0.87	0.30	7.99
Milwaukee, WI	0.03	0.83	0.29	7.52
Austin, TX	0.03	0.76	0.27	7.03
Dallas, TX	0.03	0.75	0.27	6.94
Denver, CO	0.03	0.73	0.26	6.81
Sacramento, CA	0.03	0.70	0.26	6.77
Atlanta, GA	0.03	0.74	0.26	6.65
San Diego, CA	0.02	0.50	0.23	5.85
Portland, OR	0.02	0.55	0.21	5.42

Notes: Damages account for human mortality and morbidity, crop and timber yields, degradation of buildings and material, and reduced visibility and recreation. \Top States" and \Top MSAs" determined by excess damages.

VW FOIA, EPA 06/20/2017 2017-FFP_037220

for $PM_{2:5}$ given in Lepeule et al. (2012). This plausible alternative assumption doubles our estimates. The Alternative VSL scenario uses a $2 million Value of a Statistical Life (VSL) rather than the standard $6 million VSL employed by the EPA (both expressed in year 2000 dollars). The $2 million VSL is based on a meta-analysis of Mrozek and Taylor (2002) that focused entirely on revealed preference studies. Using it lowers the damage estimate considerably. Finally, two scenarios account for uncertainty in emissions rates from Thompson et al. (2014) reported in Table 1. The Low emissions rates scenario uses emissions rates which are one standard error below the mean reported emissions rates. The High emissions rates scenario uses emissions rates which are one standard error above the mean. These scenarios give a range of 40 to 52 deaths with damages from $350 to $500 million.

Table 6: Sensitivity: Damages and Expected Deaths From Excess NO_X Emissions

Scenario	Excess Emissions (Tons)	Excess Expected Deaths	Excess Damages (millions $2014)
Baseline	45,093	46.1	$430
Mileage adjustments			
Odometer readings	44,670	45.6	$425
No state adjustment	45,391	47.2	$441
No MSA aggregation	45,093	46.4	$432
Alternative dose-response	45,093	98.6	$861
Alternative VSL	45,093	46.1	$177
Low emissions rates	38,288	39.5	$368
High emissions rates	51,897	52.8	$492

Notes: \Odometer readings" uses data on used-car odometer readings rather than our estimate of miles driven from NWHA data. \No state adjustment" does not adjust mileage for di♂erential driving across states. \No MSA aggregation" assumes vehicles are driven only in their county of registration. \Alternative dose-response" uses a higher dose response function from Lepeule et al. 2012. \Alternative VSL" uses a lower VSL from Mrozek and Taylor (2002). \High" and \Low" emission rates are one standard error above and below baseline.

The economic analysis of enforcement, pioneered by Becker (1968), states that when regulatory enforcement is imperfect, □rms will properly internalize the external damages to society only if the expected cost of risking the □ne equals these damages: Prob ‡ Fine = Damages, where Prob is the expected probability of being □ned. It follows that □nes need to

VW FOIA, EPA 06/20/2017 2017-FFP_037221

208 belargerthandamages. We□ndtotaldamageslessthan $1billion. Onepreliminaryestimate
209 of EPA □nes is $18 billion (Bloomberg 2015). The initial stock market response proxies the
210 overall expected e♂ect of the scandal on Volkswagen's business. With concern about □nes
211 from additional countries and consumer response, Volkswagen's market capitalization fell by
212 over $40 billion from September 16 to October 2, 2015. Of course, the eventual □nancial
213 repercussions may not be clear for several years.

214 Defeat devices increase NO_X emissions but also allow the vehicles to have some combi-
215 nation of increased power and fuel economy. In testing the 2013 Volkswagen Passat TDI
216 over 20,000 miles, Edmunds found the average on-road MPG was 37.2 miles per gallon com-
217 pared to the EPA rating of 34 mpg (Edmunds 2015). So requiring Volkswagen to meet NO_X
218 standards is likely to lead to increased CO_2 emissions. In other words, the use of the defeat
219 devices led to a bene□t in terms of decrease CO_2 emissions. What is the value of this bene□t?
220 Suppose the current MPG is indeed 37.2 and meeting the NO_X standard reduces this to 34.
221 Based on the total mileage that we estimated for all Volkswagen diesel vehicles in the U.S.,
222 this change would result in 639 additional metric tons of CO_2 emissions, which would cause
223 $25.6 million in damages (see the Supporting Information for details of this calculation). In
224 fact, the MPG would have to be reduced to 14.4 for these damages from additional emissions
225 of CO_2 to be equal to our baseline value of $430 million damages from excess NO_X emissions.
226 It is implausible that the counterfactual MPG would be that low, thus damages from NO_X
227 emissions outweigh the bene□ts of reduced CO_2 emissions.

228 Although the situations di♂er, it is interesting to compare the defeat devices to other
229 prominent cases of defective vehicles. The defective GM ignition switch led to 124 deaths,
230 the Ford/Firestone tire blowout problem led to 271 deaths, and the GM pickup side gas
231 tank design led to between 100 and 400 deaths (New York Times 2015, Fortune 2015, Mother
232 Jones 2015). In these other cases, the deaths are all associated with accidents and identi□able
233 victims. Inthecaseofthedefeatdevices, thedeathsarestatistical, inthatincreasedexposure
234 to NO_X leads to increased risk of death. There are no easily identi□able victims. Nonetheless,
235 the number of deaths due to the defeat devices is comparable to the other cases, particularly
236 if we use the $PM_{2:5}$ mortality dose response function reported in Lepeule et al. (2012).

237 After our paper was submitted for publication, we became aware of a similar analysis by

VW FOIA, EPA 06/20/2017 2017-FFP_037222

Barrett et al. (2015). The main differences between their paper and ours are the following. We collected data on the actual county in which the vehicles were registered. Barrett et al. assumed \that the excess NOx emissions from the affected VW vehicles have the same spatial distribution as total NOx emissions from light duty diesel vehicles." They determined miles driven by using a light duty vehicle fleet model from the literature. We determined miles driven from FHWA data and, importantly, corroborated these results with actual milage figures from used vehicles. If the driving patterns of Volkswagen vehicles systematically differ from the average light duty vehicle, then the results in Barrett et al. may be biased. In contrast, our analysis would properly account for such differences. A final difference is the air pollution models. Barrett et al. employ adjoint modeling to derive sensitivities between NOx emissions and ambient concentrations of O3 and PM2.5, whereas AP2 derives source-receptor relationships based on a Gaussian plume model (Turner, 1994). Despite these differences, the results are fairly similar between the two papers. We estimate 46 excess expected deaths and $430 million in damages, the corresponding numbers in Barrett et al. are 59 deaths and $450 million in damages. Finally, Barrett et al. analyze both past excess emissions and future expected excess emissions under the assumption that the vehicles are not retrofitted to eliminate excess emissions. We did not consider the future excess emissions.

We have determined damages from excess NO_X emissions for approximately 450,000 Volkswagen vehicles registered in the United States. Up to 11 million Volkswagen vehicles with the defeat devices may have been sold worldwide. Damages from these vehicles depend on driving habits, air quality conditions, dose-response relationships, and values for mortality risk in other countries. More generally, actual on-road emissions for other vehicles may exceed the relevant emission standards. While clearly expensive, more comprehensive on road emission testing would shed light on the severity of this larger problem.

Acknowledgements

We would like to thank Frank Speizer for helpful comments.

Supporting Information

Miles driven, state correction, CO_2 bene□ts, and updates. This information is available free of charge via the Internet at http://pubs.acs.org/

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To: Grundler, Christopher[grundler.christopher@epa.gov]
From: Geanacopoulos, David
Sent: Thur 1/7/2016 3:55:56 AM
Subject: Fwd: (Reuters) Volkswagen likely to buy back 115,000 cars in U.S: German report

FYI per previous email. DG

Sent from my iPhone

Begin forwarded message:

From: "Geanacopoulos, David" <David.Geanacopoulos@vw.com>
Date: January 6, 2016 at 7:55:17 PM PST
To: "Geanacopoulos, David" <David.Geanacopoulos@vw.com>
Subject: (Reuters) Volkswagen likely to buy back 115,000 cars in U.S: German report

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Policy Analysis

Damages and expected deaths due to excess NOx emissions from 2009-2015 Volkswagen diesel vehicles

Stephen P. Holland, Erin Mansur, Nicholas Muller, and Andrew Yates

Environ. Sci. Technol., **Just Accepted Manuscript** • DOI: 10.1021/acs.est.5b05190 • Publication Date (Web): 31 Dec 2015

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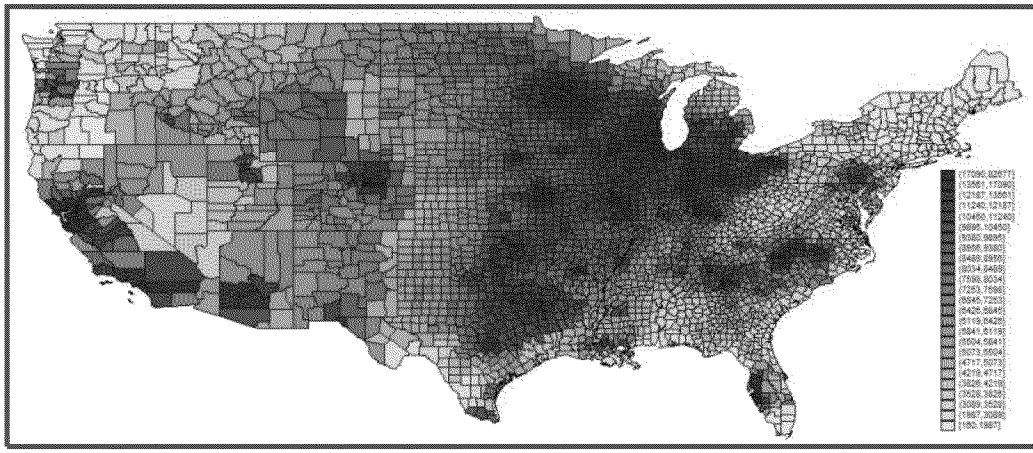
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Excess꿹□ηNOx꿹□η Emissions	Excess꿹□ηExpected꿹□η Deaths	Excess꿹□ηDamages꿹□η
45,093꿹□ηtons꿹□η	46.14꿹□η	$430꿹□ηmillion꿹□η

ACS Paragon Plus Environment

Damages and expected deaths due to excess NO_X emissions from 2009-2015 Volkswagen diesel vehicles

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December 30, 2015

Abstract

We estimate the damages and expected deaths in the United States due to excess emissions of NO_X from 2009-2015 Volkswagen diesel vehicles. Using data on vehicle registrations and a model of pollution transport and valuation, we estimate excess damages of $430 million and 46 excess expected deaths. Accounting for uncertainty about emissions gives a range for damages from $350 million to $500 million, and a range for excess expected deaths from 40 to 52. Our estimates incorporate significant local heterogeneity: e.g., Minneapolis has the highest damages despite having fewer noncompliant vehicles than thirteen other cities. Our estimated damages greatly exceed possible benefits from reduced CO_2 emissions due to increased fuel economy.

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1 Introduction

Since the 1970s the United States Environmental Protection Agency (EPA) has regulated air pollution emissions from vehicles. Vehicles must first pass emissions tests to be certified for sale, and they generally must also pass annual inspections for continued use. This two-pronged approach might seem sufficient. However, recent events reveal the vehicle manufacturers may not be in compliance.

In September 2015, the EPA issued a notice of violation to the Volkswagen Group of America concerning excess emissions from certain 2009-2015 model year Volkswagen diesel powered vehicles (EPA 2015). These vehicles utilized a defeat device that detects when the vehicle is under emissions testing and lowers NO_X emissions during the test. More specifically, Volkswagen installed software in the electronic control module that analyzed various data including \the position of the steering wheel, vehicle speed, the duration of engine's operation, and barometric pressure" (EPA 2015). When the data indicated that it was likely that the vehicle was undergoing emissions testing, then the software temporarily increased the performance of the emission control system to reduce emissions from the level found in normal operation. A scientific study of two vehicles equipped with the defeat device determined that on-road emissions of NO_X were significantly higher than the EPA standard (Thompson et al. 2014). These defeat devices have been installed in approximately 480,000 Volkswagen diesel vehicles sold in the U.S. (EPA 2015). We estimate the damages and expected deaths due to excess NO_X emissions, accounting for the fact that these effects vary depending how far, and where, the vehicles are driven. Additional Volkswagen vehicles may also have defeat devices (the Supporting Information discusses the ongoing investigation).

2 Data and Methods

Volkswagen employs two different exhaust after-treatment systems as part of the overall NO_X emissions control system in its diesel engines. The lean NO_X trap (LNT) employs a special coating in the catalytic converter to absorb NO_X. The selective catalytic reduction (SCR) injects urea into the catalytic converter where it neutralizes the NO_X. Thompson et

VW FOIA, EPA 06/20/2017 2017-FFP_037232

al. (2014) study actual on-road emissions of NO_X from Volkswagen vehicles equipped with these technologies as well as one other vehicle (Table 1). The two Volkswagen diesel vehicles emit signi□cantly more NO_X than the EPA standard under all driving routes. (The standard speci□es NO_X, but the ratio of NO_2 to NO may play an important role. See Jacobsen et al. 2004.) The vehicle with LNT technology averaged 1.235 g/km when driven in urban areas and 0.614 when driven on highways. For the vehicle with SCR technology, the values are 0.757 and 0.334, respectively. The EPA standard is 0.043. In contrast, the third vehicle tested, BMW, is close to the standard.

Table 1: NO_X emissions during Driving Tests

Route	Vehicle A 2012 Jetta Sportwagen LNT	Vehicle B 2013 Passat SCR	Vehicle C 2012 BMW X5 xDrive 35d SCR
Highway	0.614 (0.283)	0.344 (0.096)	0.048
Urban (LA)	0.989 (0.114)	0.809 (0.075)	0.070 (0.041)
Urban (San Diego)	1.480 (0.335)	0.675 (0.057)	
Urban (San Fran)		0.815	0.053 (0.021)
Average Urban	1.235 (0.350)	0.757 (0.088)	0.062
EPA Standard	0.043	0.043	0.043

Notes: Average NO_X emissions in grams per km (standard deviations in parentheses) during driving tests. All data except Average Urban row is from Table 4.3 in Thompson et al. 2014. Average Urban row is calculated from the three urban tests. LNT stands for lean NO_X trap. SCR stands for urea based selective catalytic reduction. EPA standard is 0.043 g/km. Vehicles were not identi□ed in Thompson et al. (2014), but they were identi□ed in the EPA notice of violation letter. We veri□ed this identi□cation by cross referencing fuel economy data. Numbers in bold are used in our calculations.

To determine the geographic distribution of emissions from Volkswagen vehicles, we need an estimate of how far, and where, the vehicles were driven. Information from the 2009 National Household Transportation Survey and other Federal Highway Administration (FHWA) data reveal three salient features of miles driven per vehicle. First, miles driven by the average vehicle changes over time. Second, newer vehicles are driven more miles per year than older vehicles. Third, miles driven di♂ers across states.

Combining the □rst two features enables us to determine the number of miles driven per year by the model year, as shown in Table 2. See the Supporting Information for details of this calculation. As a consistency check on the miles driven calculation, we also collected

VW FOIA, EPA 06/20/2017 2017-FFP_037233

actual odometer readings for used Volkswagen diesels from Cars.com, which is a popular used car internet site. Compared with the FHWA data, the odometer miles are a bit larger for older model years, and a bit smaller for more recent model years (Table 2). Part of the difference between these measures is that the estimates based on FHWA data use the full 2015 calendar year, while the odometer reading is as of September 30, 2015 for all model years.

Table 2: Two Estimates of Miles Driven by Model Year

Model Year	FHWA data	Used Car Odometer
2009	95,710	103,425
2010	84,929	90,752
2011	72,322	78,099
2012	59,765	61,197
2013	46,315	41,361
2014	30,878	21,724
2015	15,438	7,122

Notes: Used car odometer data taken from Cars.com on September 30, 2015 for used Volkswagen vehicle models and years listed in Table 3. The scope of the search was the entire United States.

The values in Table 2 are estimates of the average number of miles driven by an average vehicle in the average location in the United States. We use additional FHWA data to incorporate the third salient feature of miles driven (it differs across states). For each state we determine the increase or decrease in miles per vehicle relative to the U.S. average (see Table S2 in the Supporting Information). For example, vehicles driven in Alabama are driven 1.15 times farther than the average vehicle.

To answer the question of where the vehicles were driven, we use registration data obtained from IHS Automotive. These provide a snapshot of registrations for all Volkswagen diesel vehicles with the defeat device (Table 3). The EPA press release stated that the defeat devices were installed in 482,000 Volkswagen diesel vehicles sold in the United States. The IHS data indicates that 447,549 Volkswagen diesel vehicles with the appropriate model and model years were registered as of July 1, 2015. One reason for this discrepancy is that some of the vehicles would have been retired from use over time. Another is that some of the

VW FOIA, EPA 06/20/2017 2017-FFP_037234

vehicles were registered after July 1, 2015. With the exception of the Passat, vehicles in the 2009-2014 model years were equipped with the LNT technology. For the 2015 model year, all vehicles were equipped with a modified SCR technology. We do not have emission testing results for the modified SCR technology, so we assume emissions are the same as with the previous SCR technology. The number of miles driven by 2015 model year vehicles is small relative to the overall miles driven by all vehicles in this study, so the effect of any inaccuracy in this assumption is likely to be small.

The registration data give the county of registration for each vehicle. The vast majority of the vehicles (86 percent) are registered in urban counties. The states and Metropolitan Statistical Area (MSAs) with the most registrations are given in Table 4.

Table 3: Volkswagen Diesel Registrations and NO_X Technology

	Model Years							
Model	2009	2010	2011	2012	2013	2014	2015	Total
Audi A3		2067	3602	3730	1765		2041‡	13,205
Beetle					6327	3821	467‡	10,615
Golf		4203	8682	10,820	8397	3100	7263‡	42,465
Golf Sportwagen							2339‡	2,339
Jetta	35,941	50,843	40,850	49,807	49,007	42197	8451‡	277,096
Passat				17,949‡	39,005‡	32,442‡	12,433‡	101,829
Total	35,941	57,113	53,134	82,306	104,501	81,560	32,994	447,549

Notes: ‡ indicates SCR technology, all other vehicless have LNT technology. Vehicle and model year information from EPA 2015. Registrations are as of July 1, 2015, and are obtained from IHS Automotive. Jetta includes Jetta Sportwagen, Beetle includes Beetle convertible.

Because we only have a snapshot of the vehicle registrations, we assume a vehicle stays registered in the county for the entire period it is in service. We assume that a vehicle registered in an urban county is driven only within the counties that make up the relevant MSA, with the number of miles driven in each county determined by the distribution of VMT across the counties. Note that MSAs include suburban communities. A vehicle registered in a rural county is driven only within the rural counties of the state, again determined by relative VMT. This procedure may lead to an underestimation of damages, as vehicles from rural counties may be more likely to be driven into urban counties than the reverse. We obtained VMT per county from the EPA Motor Vehicle Emission Simulator. This procedure

VW FOIA, EPA 06/20/2017 2017-FFP_037235

allows us to determine the geographic distribution of miles driven.

Combining miles driven with the emissions rates from Table 1 gives us allowed and actual emissions (Table 4). For rural counties we use the highway values from Table 1. For urban counties we use the average urban values from Table 1. California has 65,000 registered Volkswagen diesels with defeat devices, and these vehicles have driven over 3 billion miles. If they had met the EPA standard, then they would have emitted 237 tons of NO_X. But actual emissions are estimated to be over 6000 tons. The difference between these two numbers is the excess emissions from use of the defeat devices.

We use the AP2 air pollution integrated assessment model to connect excess ground-level NO_X emissions to changes in ambient concentration of pollutants and associated deaths and monetary damages (Muller and Mendelsohn, 2009; Muller, 2011; Muller 2014). The main component of damages is human mortality, but AP2 also accounts for morbidity, crop and timber yields, degradation of buildings and material, and reduced visibility and recreation. For human mortality, AP2 uses results from Pope et al. (2002) to specify the effect of $PM_{2:5}$ exposure on adult mortality rates and results from Bell et al. (2004) to specify the effect of O_3 exposure on all-age mortality rates. We assume the NO_2:NO ratio is the same for all emission sources. Jacobsen et al. (2004) show that this may lead to a downward bias in estimated damages, because diesel vehicles may have higher ratios than gasoline vehicles.

The AP2 model employs a modified Gaussian plume air quality model to estimate annual and seasonal average air pollution concentrations (Turner, 1994; Muller and Mendelsohn, 2007). To calculate the contribution of NO_X emissions to ambient concentrations of ammonium nitrate, the model first estimates the concentrations of nitrate (NO_3) resulting from NO_X emissions by county for 2011. This calculation assumes a NO_X to NO_3 conversion rate constant of 2% per hour and dry and wet deposition velocities of 1 cm/s and 0.0003*Precipitation (cm/s), respectively. The model also calculates ambient concentrations of ammonium (NH_4) and sulfate for each county. In a given location, the model estimates the equilibrium concentrations of ammonium sulfate and ammonium nitrate by assuming that ammonium preferentially reacts with ammonium sulfate. Remaining ammonium is available to react with nitrate in order to form ammonium nitrate which is then counted as $PM_{2:5}$. Because the structure of the air quality model is Gaussian, it does not explicitly treat meteorological

VW FOIA, EPA 06/20/2017 2017-FFP_037236

Table 4: Volkswagen Diesel Registrations, Estimated Miles Driven, and NO_X Emissions

	Registrations	Miles Driven (Millions)	Allowed Emissions (Tons)	Actual Emissions (Tons)
United States	447,549	24,822	1,893	46,986
Top States				
California	64,816	3,102	237	6,268
Texas	33,588	2,289	174	4,325
Florida	25,403	1,447	110	2,832
New York	20,040	1,166	69	1,701
Pennsylvania	19,772	1,023	71	1,739
North Carolina	14,441	949	84	2,038
Illinois	19,953	944	89	2,230
Washington	18,282	885	63	1,607
Virginia	14,555	825	24	568
Maryland	12,234	712	49	1,263
Top MSAs				
Chicago, IL	11,466	545	42	1,079
Los Angeles, CA	11,025	527	40	1,087
Houston, TX	7,674	521	40	1,044
Washington, DC	9,013	520	40	1,070
Atlanta, GA	6,426	411	31	830
Seattle, WA	8,345	408	31	856
San Diego, CA	7,985	383	29	787
Portland, OR	7,366	381	29	796
Dallas, TX	5,265	369	28	744
Baltimore, MD	6,265	361	28	738
Phoenix, AZ	6,002	341	26	685
New York, NY	6,126	340	26	699
Minneapolis, MN	5,593	305	23	630
Austin, TX	4,128	292	22	601
Philadelphia, PA	5,584	288	22	592
Oakland, CA	5,809	286	22	594
San Francisco,CA	5,572	275	21	580
Riverside, CA	5,803	257	20	512
Denver, CO	4,816	255	19	531

Notes: \Registrations" are Volkswagen diesel registrations as of July 1, 2015 from IHS Automotive. \Miles driven" (in millions) is estimated miles driven by all registered vehicles based on the vintages of the vehicles and state-level driving propensity. \Allowed Emissions" is tons of NO_X which would be allowed if the vehicles performed as required by the EPA standards. \Actual Emissions" is tons of NO_X based on estimated emissions rates from Thompson et al. (2014). \Top States" and \Top MSAs" determined by miles driven.

factors such as clouds. However, the model does use meteorological data in the estimation of the Gaussian equations.

Although the AP2 employs a reduced-form approach to air quality modeling, the predictions produced by the model are strongly positively correlated with ambient $PM_{2:5}$ monitoring data. Jaramillo and Muller (2015) report a battery of test statistics for the AP2 predicted baseline concentrations. Employing the performance evaluation criteria and goals set forth in Boylan and Russell (2006), Jaramillo and Muller (2015) show that, for ammonium nitrate, AP2 predictions generate mean fractional error (MFE) of less than 0.70 from 1999 to 2011 and mean fractional bias (MFB) of less than 0.20 in absolute value. The values for 2011 are an MFE of 0.68 and an MFB of 0.10. Total $PM_{2:5}$ ultimately drives the damage estimates since particular species of PM are not inputs to the mortality dose-response functions. Here, the AP2 model performs quite well in 2011 (MFE = 0.34; MFB = -0.22). Both are well within the model performance guideline proposed by Boylan and Russell (2006).

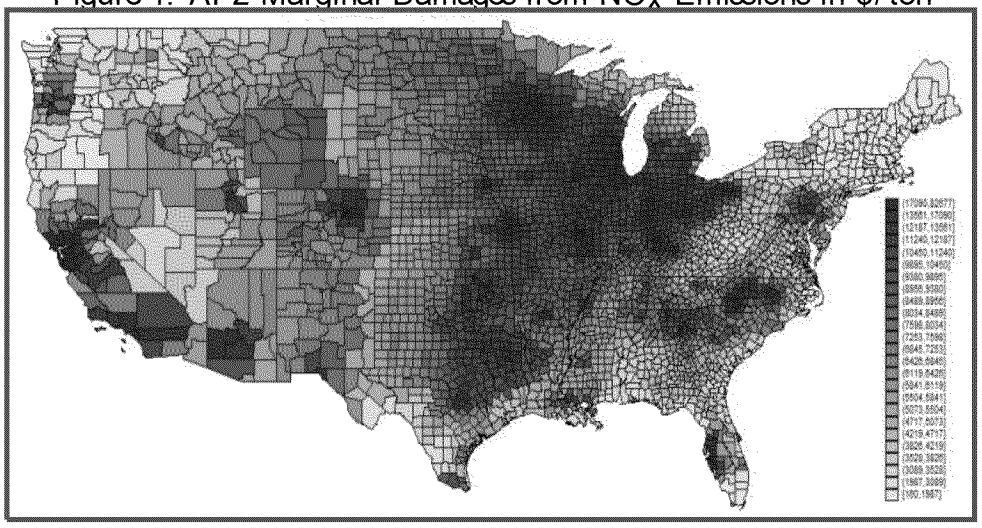
AP2 computes marginal damages by first using the 2011 EPA National Emissions Inventory (NEI) to estimate baseline concentrations of $PM_{2:5}$ and O_3. Exposures, physical effects (such as mortality risks), and monetary damages associated with baseline emissions are then estimated. Next, one ton of NO_X is added to a particular source's baseline emissions. The AP2 model then re-computes concentrations, exposures, physical effects, and monetary damages. Since the only change between the add-one-ton case and the baseline is the additional ton of NO_X, the change in damage across all counties receiving additional pollution is strictly attributable to that ton of NO_X emitted from the selected source. This difference comprises the marginal damage. Emissions are then reset to the baseline, and the AP2 model moves on to the next source location and repeats this simulation design. Figure 1, which was created by the authors from the AP2 model output, shows the full set of county-specific marginal damage estimates.

Because mortality effects dominate air pollution damages, one might expect damages to correlate with population. For NO_X this is not necessarily the case because the conditions under which NO_X forms $PM_{2:5}$ are non-linearly related to emissions of SO_2 and ammonia. NO_X damages tend to be higher nearby major sources of ammonia emissions. The area of elevated marginal damages through the Midwest, especially in Minnesota, is in part driven

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by copious ammonia emissions from agricultural sources. This also explains higher marginal damages in California's Central Valley, the Carolinas, and Southeastern Pennsylvania.

Figure 1: AP2 Marginal Damages from NO_X Emissions in $/ton



We illustrate our calculation of damages and deaths due to the excess emissions of NO_X. Consider a 2010 Jetta registered in Fulton County, Georgia. The vehicle uses the LNT technology, and is driven in an urban area, so excess emissions (net of the EPA standard) in grams per mile are

$$e = (1{:}235g/km - 0{:}043g/km) \ddagger 1{:}62km/mile{:}$$

According to our FHWA data, the average 2010 vehicle has been driven 84,929 miles. From Table S2 in the Supplementary Information, we see that vehicles in Georgia are driven 1.18 times more than average. Fulton county is in the Atlanta MSA, which includes 28 counties. Let the marginal damages due to one gram of NO_X emissions (determined from AP2) in each county i in the MSA be denoted by d_i. Likewise, let the VMT in each county be denoted by v_i. Finally, let $v = P_i^{28} v_i$. Damages due to driving the vehicle over its lifetime to date is given by

$$84929(1{:}18)e \sum_{i}^{28} (d_i \ddagger v_i \sim v){:}$$

3 Results

Our baseline scenario uses FHWA data for miles driven, includes a state adjustment for the miles, uses the dose-response function for $PM_{2:5}$ given in Pope et al. (2002), and assumes that an urban vehicle is driven throughout the MSA as described above. Baseline results for allowed expected deaths and damages (what would have occurred if the vehicles had met the EPA regulations) and excess expected deaths and damages (the difference between actual and allowed) are given in Table 5. Values are expressed in 2014 dollars, and we do not discount damages across time. We find 46 excess deaths and $430 million in excess damages from driving all the vehicles with defeat devices from initial sale through 2015. These numbers are approximately 25 times their allowed counterparts. Approximately 88% of damages are due to $PM_{2:5}$. The remaining damages result from exposure to ambient O_3.

Table 5 also reports the top states and MSAs. The ranking by damages across states and MSAs largely corresponds to the ranking based on mileage in Table 4. However, the results also indicate the importance of local effects. For example, the Minneapolis MSA has the highest damages despite having fewer vehicles than thirteen other MSAs. This reflects the high marginal damages in the upper Midwest illustrated in Figure 1. Conversely, Washington, DC and New York, NY rank third and tenth in numbers of vehicles, but 28th and 49th in terms of damages, due to the low marginal damages in the Northeast. We stress that these damages and expected deaths are due to driving in the state or MSA, but do not necessarily occur there, as the pollution emitted in one place may spread and cause damages elsewhere.

We assess the sensitivity of our result to key parameters in seven additional scenarios (Table 6). First, three scenarios address our assumptions about mileage. The Odometer readings scenario employs used car odometer data rather than the FHWA data to determine miles driven by the average car. The No state adjustment scenario assumes that vehicles are driven the same amount in each state. The No MSA aggregation scenario assumes that a given vehicle is driven exclusively in the county in which it is registered. The results are not sensitive to assumptions about miles driven. Next, two additional scenarios assess assumptions in the AP2 model. The Alternative dose response scenario uses the dose response

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Table 5: Damages and Expected Deaths From Excess NO_X Emissions

	Expected Deaths		Damages	
	Allowed	Excess	Allowed	Excess
United States	1.87	46.14	17.40	430.21
Top States				
California	0.54	13.95	5.30	137.13
Illinois	0.19	4.70	1.70	41.68
Texas	0.13	3.17	1.21	29.25
Minnesota	0.13	3.21	1.13	28.65
Wisconsin	0.07	1.77	0.68	16.05
North Carolina	0.07	1.70	0.65	15.50
Indiana	0.06	1.56	0.57	13.98
Arizona	0.06	1.38	0.52	13.07
Florida	0.05	1.32	0.48	11.96
Colorado	0.05	1.27	0.47	11.88
Georgia	0.05	1.11	0.41	10.00
Top MSA's				
Minneapolis, MN	0.11	2.99	1.02	26.59
Los Angeles, CA	0.10	2.50	0.99	25.80
Chicago, IL	0.10	2.57	0.91	22.74
Oakland, CA	0.09	2.36	0.85	22.26
Santa Ana, CA	0.09	2.20	0.84	21.65
San Francisco,CA	0.06	1.64	0.59	15.66
San Jose, CA	0.05	1.31	0.48	12.51
Phoenix, AZ	0.05	1.19	0.45	11.35
St. Louis, MO	0.05	1.20	0.41	10.55
Riverside, CA	0.04	0.98	0.38	9.56
Salt Lake City, UT	0.03	0.87	0.30	7.99
Milwaukee, WI	0.03	0.83	0.29	7.52
Austin, TX	0.03	0.76	0.27	7.03
Dallas, TX	0.03	0.75	0.27	6.94
Denver, CO	0.03	0.73	0.26	6.81
Sacramento, CA	0.03	0.70	0.26	6.77
Atlanta, GA	0.03	0.74	0.26	6.65
San Diego, CA	0.02	0.50	0.23	5.85
Portland, OR	0.02	0.55	0.21	5.42

Notes: Damages account for human mortality and morbidity, crop and timber yields, degradation of buildings and material, and reduced visibility and recreation. \Top States" and \Top MSAs" determined by excess damages.

VW FOIA, EPA 06/20/2017 2017-FFP_037241

for $PM_{2:5}$ given in Lepeule et al. (2012). This plausible alternative assumption doubles our estimates. The Alternative VSL scenario uses a $2 million Value of a Statistical Life (VSL) rather than the standard $6 million VSL employed by the EPA (both expressed in year 2000 dollars). The $2 million VSL is based on a meta-analysis of Mrozek and Taylor (2002) that focused entirely on revealed preference studies. Using it lowers the damage estimate considerably. Finally, two scenarios account for uncertainty in emissions rates from Thompson et al. (2014) reported in Table 1. The Low emissions rates scenario uses emissions rates which are one standard error below the mean reported emissions rates. The High emissions rates scenario uses emissions rates which are one standard error above the mean. These scenarios give a range of 40 to 52 deaths with damages from $350 to $500 million.

Table 6: Sensitivity: Damages and Expected Deaths From Excess NO_X Emissions

Scenario	Excess Emissions (Tons)	Excess Expected Deaths	Excess Damages (millions $2014)
Baseline	45,093	46.1	$430
Mileage adjustments			
Odometer readings	44,670	45.6	$425
No state adjustment	45,391	47.2	$441
No MSA aggregation	45,093	46.4	$432
Alternative dose-response	45,093	98.6	$861
Alternative VSL	45,093	46.1	$177
Low emissions rates	38,288	39.5	$368
High emissions rates	51,897	52.8	$492

Notes: \Odometer readings" uses data on used-car odometer readings rather than our estimate of miles driven from NWHA data. \No state adjustment" does not adjust mileage for di♂erential driving across states. \No MSA aggregation" assumes vehicles are driven only in their county of registration. \Alternative dose-response" uses a higher dose response function from Lepeule et al. 2012. \Alternative VSL" uses a lower VSL from Mrozek and Taylor (2002). \High" and \Low" emission rates are one standard error above and below baseline.

The economic analysis of enforcement, pioneered by Becker (1968), states that when regulatory enforcement is imperfect, □rms will properly internalize the external damages to society only if the expected cost of risking the □ne equals these damages: Prob ‡ Fine = Damages, where Prob is the expected probability of being □ned. It follows that □nes need to

VW FOIA, EPA 06/20/2017 2017-FFP_037242

208 belargerthandamages. We□ndtotaldamageslessthan $1billion. Onepreliminaryestimate
209 of EPA □nes is $18 billion (Bloomberg 2015). The initial stock market response proxies the
210 overall expected e♂ect of the scandal on Volkswagen's business. With concern about □nes
211 from additional countries and consumer response, Volkswagen's market capitalization fell by
212 over $40 billion from September 16 to October 2, 2015. Of course, the eventual □nancial
213 repercussions may not be clear for several years.

214 Defeat devices increase NO_X emissions but also allow the vehicles to have some combi-
215 nation of increased power and fuel economy. In testing the 2013 Volkswagen Passat TDI
216 over 20,000 miles, Edmunds found the average on-road MPG was 37.2 miles per gallon com-
217 pared to the EPA rating of 34 mpg (Edmunds 2015). So requiring Volkswagen to meet NO_X
218 standards is likely to lead to increased CO_2 emissions. In other words, the use of the defeat
219 devices led to a bene□t in terms of decrease CO_2 emissions. What is the value of this bene□t?
220 Suppose the current MPG is indeed 37.2 and meeting the NO_X standard reduces this to 34.
221 Based on the total mileage that we estimated for all Volkswagen diesel vehicles in the U.S.,
222 this change would result in 639 additional metric tons of CO_2 emissions, which would cause
223 $25.6 million in damages (see the Supporting Information for details of this calculation). In
224 fact, the MPG would have to be reduced to 14.4 for these damages from additional emissions
225 of CO_2 to be equal to our baseline value of $430 million damages from excess NO_X emissions.
226 It is implausible that the counterfactual MPG would be that low, thus damages from NO_X
227 emissions outweigh the bene□ts of reduced CO_2 emissions.

228 Although the situations di♂er, it is interesting to compare the defeat devices to other
229 prominent cases of defective vehicles. The defective GM ignition switch led to 124 deaths,
230 the Ford/Firestone tire blowout problem led to 271 deaths, and the GM pickup side gas
231 tank design led to between 100 and 400 deaths (New York Times 2015, Fortune 2015, Mother
232 Jones 2015). In these other cases, the deaths are all associated with accidents and identi□able
233 victims. Inthecaseofthedefeatdevices, thedeathsarestatistical, inthatincreasedexposure
234 to NO_X leads to increased risk of death. There are no easily identi□able victims. Nonetheless,
235 the number of deaths due to the defeat devices is comparable to the other cases, particularly
236 if we use the $PM_{2:5}$ mortality dose response function reported in Lepeule et al. (2012).

237 After our paper was submitted for publication, we became aware of a similar analysis by

VW FOIA, EPA 06/20/2017 2017-FFP_037243

Barrett et al. (2015). The main differences between their paper and ours are the following. We collected data on the actual county in which the vehicles were registered. Barrett et al. assumed \that the excess NOx emissions from the affected VW vehicles have the same spatial distribution as total NOx emissions from light duty diesel vehicles." They determined miles driven by using a light duty vehicle fleet model from the literature. We determined miles driven from FHWA data and, importantly, corroborated these results with actual milage figures from used vehicles. If the driving patterns of Volkswagen vehicles systematically differ from the average light duty vehicle, then the results in Barrett et al. may be biased. In contrast, our analysis would properly account for such differences. A final difference is the air pollution models. Barrett et al. employ adjoint modeling to derive sensitivities between NOx emissions and ambient concentrations of O3 and PM2.5, whereas AP2 derives source-receptor relationships based on a Gaussian plume model (Turner, 1994). Despite these differences, the results are fairly similar between the two papers. We estimate 46 excess expected deaths and $430 million in damages, the corresponding numbers in Barrett et al. are 59 deaths and $450 million in damages. Finally, Barrett et al. analyze both past excess emissions and future expected excess emissions under the assumption that the vehicles are not retrofitted to eliminate excess emissions. We did not consider the future excess emissions.

We have determined damages from excess NO_X emissions for approximately 450,000 Volkswagen vehicles registered in the United States. Up to 11 million Volkswagen vehicles with the defeat devices may have been sold worldwide. Damages from these vehicles depend on driving habits, air quality conditions, dose-response relationships, and values for mortality risk in other countries. More generally, actual on-road emissions for other vehicles may exceed the relevant emission standards. While clearly expensive, more comprehensive on road emission testing would shed light on the severity of this larger problem.

Acknowledgements

We would like to thank Frank Speizer for helpful comments.

Supporting Information

Miles driven, state correction, CO_2 bene□ts, and updates. This information is available free of charge via the Internet at http://pubs.acs.org/

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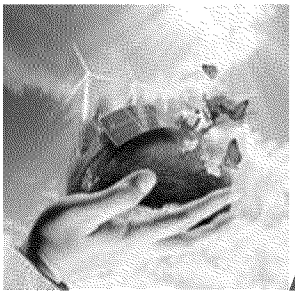
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VW FOIA, EPA 06/20/2017 2017-FFP_037247

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Air & Radiation Law News

for January 7, 2016

Bloomberg BNA **Daily Environment Report™**

Air Pollution

Group Can't Sue Power Plant Over Emissions: Court

An environmental group in Pennsylvania has no grounds to sue a coke plant for failure to comply with emissions standards, an appeals court ruled, upholding the finding of a lower court dismissing the lawsuit for lack of subject matter jurisdiction...

Air Pollution

More Steps Ordered to Deal With Gas Leaks

California Gov. Jerry Brown (D) declared the natural gas leak in the Los Angeles area an emergency Jan. 6 and used the proclamation to list a number of additional measures to address the leak, mitigate its

impacts and reduce the risk of more leaks....

Air Pollution

VW Criminal Charges Possible Despite Civil Lawsuit

The federal government may follow up a multibillion-dollar civil complaint filed by the government against Volkswagen AG with a criminal indictment related to the automaker's use of illegal technology in its diesel vehicles, according...

Air Pollution

VW Executive Confident Diesel Fix Will Be Approved

Volkswagen AG is confident that it will soon be able to offer an approved solution for 500,000 diesel cars in the U.S. that were equipped with illegal defeat devices that allowed them to pass emissions tests despite emitting far more nitrogen...

Asbestos

Asbestos, Class Action Bill Faces Steep Senate Hurdle

A bill to limit class actions and restrict illegitimate asbestos bankruptcy trust claims is predicted to sail through the House this week but is unlikely to muster sufficient votes in the Senate, sources told Bloomberg BNA....

Climate Policy

Washington State Issues Draft Carbon Cap Rule

Washington state companies like BP Plc, Shell and Phillips 66 Co. that emit at least 100,000 metric tons of greenhouse gases would have to cut carbon emissions by 5 percent every three years, under a draft rule released Jan. 6 by the state Department...

Climate Regulation

EPA Announces Three Clean Power Plan Webinars

The Environmental Protection Agency plans to hold three webinars in January concerning various components of its Clean Power Plan (RIN 2060-AR33), which aims to reduce carbon dioxide emissions from the nation's existing fleet of power...

Coal Mining

Environmentalists Appeal Alpha, W.Va. Reclamation Deal

Environmentalists have appealed a bankruptcy court-approved deal between Alpha Natural Resources and West Virginia on the coal giant's mining reclamation obligations in the state (In re Alpha Nat. Res., Inc., Bankr. E.D. Va., No. 3:15-bk-33896,...

Emissions Trading

NRG Says States Should Consider Dropping RGGI

A major electric power company is bucking the trend in its industry and urging states in the Regional Greenhouse Gas Initiative (RGGI) to consider abandoning the nine-state greenhouse gas emissions trading program in favor of individual...

Endangered Species

Court Refuses Injunction in Sage Grouse Case

Federal restrictions on land use to protect the greater sage grouse remain in effect after a federal court refused to issue a preliminary injunction to block the rule (W. Exploration LLC v. Interior, D. Nev., No. 3:15-cv-491, 1/5/16)....

Energy

Iowa Windmill Owners Defend Supreme Court Cert Petition

Iowa windmill owners Jan. 6 filed a brief in the Supreme Court defending their claim that Midland Power Cooperative, an Iowa power utility, has to pay them higher rates than what Midland pays to purchase electricity from other generators (Sweckers...

Energy

TransCanada Sues Over Keystone Pipeline Denial

TransCanada Corp. filed a lawsuit in a federal court in Houston, saying President Barack Obama's decision to deny construction of the Keystone XL oil pipeline exceeded his power under the Constitution....

Oil & Gas

Pennsylvania Issues Final Oil, Gas Rule for Review

The Pennsylvania Department of Environmental Protection (DEP) sent its final rulemaking on oil and gas wells to the state's Environmental Quality Board (EQB) for review Jan. 6, one of the last steps in a regulatory process that has stretched...

Pipeline Safety

Limit Use of Direct Test in Hazardous Liquid Rule: NTSB

Direct assessments should only be allowed to be used to evaluate the integrity of certain pipelines as a last resort in the upcoming hazardous liquids final rule, the National Transportation Safety Board recently told the Pipeline and Hazardous...

Regulatory Policy

House Set to Vote on Four Regulatory Bills

The House adopted by a vote of 239-176 a rule (H. Res. 580) that essentially sets up final votes Jan. 7 on four regulatory measures opposed by most Democrats and the White House, three of which have now been combined into one bill....

Renewable Energy

For EU Utilities, South Beats North in Money-Making Renewables

Southern European utilities are poised to outperform their northern peers for a second year by relying on wind and solar power instead of dirty coal-fired generation....

Renewable Energy

Wind, Solar Rules Yield $7.4 Billion in Benefits

Rules to promote wind and solar power generated $7.4 billion in environmental and health benefits in 2013, according to a U.S. government study that comes as states debate whether to continue their renewable-energy mandates....

Vehicle Fuels

Cruz Clarifies RFS Position, Embraces Ethanol in Iowa

Sen. Ted Cruz, the Republican front-runner in Iowa, declared his support for corn-based ethanol and the renewable fuel standard during a campaign swing through the state after he came under attack from a pro-ethanol group....

Vehicle Fuels

Plug-In Vehicles Fail to Win U.S. Support

Plug-in electric vehicles failed to win over U.S. consumers amid the auto industry's record sales in 2015, as low gasoline costs and daunting sticker prices dampened demand....



Inside EPA's **Weekly Report,** 01/08/2016

http://insideepa.com/newsletters/inside-epa

News Briefs

White House Vows To Veto House Regulatory Reform Bills

The White House is threatening to veto two regulatory reform bills poised to clear the House this week that would set strict limits on EPA and other agencies' rulemaking activities including new hurdles for settlements imposing deadlines for issuing rules, warning the bills would undermine environmental and health protections.

Greenwire

PEOPLE:

Resources for the Future chief gets DOE energy security medal

Hannah Hess, E&E reporter

Published: Wednesday, January 6, 2016

Resources for the Future President Phil Sharp will collect the James R. Schlesinger Medal for Energy Security later this month, as the former congressman winds down his career in energy policy.

Energy Secretary Ernest Moniz will present Sharp with the award on Jan. 20 during a ceremony at the department's headquarters. Sharp, who has announced plans to retire this summer, is recognized for achievements during his 10 terms representing Indiana in Congress, decades in academia and career in the private sector (*Greenwire*, Oct. 22, 2015).

PEOPLE

The Democrat advanced key energy legislation while serving on the House Energy and Commerce Committee and House Interior and Insular Affairs Committee. During Sharp's tenure on Capitol Hill, President Carter appointed Schlesinger, a Republican, as his special adviser on energy and subsequently as the first secretary of Energy.

"I am deeply honored to receive this award from a secretary who has demonstrated exceptional leadership at a time when governance in America is exceptionally difficult," Sharp said. "It is an award named for a very distinguished public servant, with whom I worked, at a time when our nation's energy security was of intense concern."

Sharp was a driving force behind the Energy Policy Act of 1992 and helped to develop a critical part of the 1990 Clean Air Act Amendments. After leaving Congress in 1995, Sharp joined the John F. Kennedy School of Government at Harvard University, where he also directed its Institute of Politics.

Sharp has been the president of Resources for the Future since 2005. He is also a senior policy adviser to the law firm of Van Ness Feldman LLP and has served as director of New England Power Co. and Proton Energy Systems Inc. He has been a director of Cinergy Corp. since 1995.

"Phil Sharp has been a fixture in energy security and clean energy progress in every possible arena for the past five decades," Moniz said. "As a member of Congress, his role in natural gas deregulation and establishing fuel economy standards are particularly notable from a U.S. energy security perspective -- we continue to reap the benefits from the foresight of these policy decisions today."

First given in 2014, the medal honors one individual each year for his or her contributions to advancing an understanding of the threats, opportunities and energy policy choices affecting the domestic and international energy security interests of the United States through analysis, policy or practice. Sharp is the second recipient. The first was Pulitzer Prize-winning energy policy expert Daniel Yergin.

CAMPAIGN 2016:

Clinton would keep solar panels on White House

Published: Wednesday, January 6, 2016

During a town hall meeting in Sioux City, Iowa, Democratic presidential candidate Hillary Clinton said she would like to see a half-billion solar panels installed throughout the country by the end of her first term, and she said she's willing to begin the process in Washington, D.C.

After being prompted by an event attendee, Clinton said she would like to see panels reinstalled on the roof of the White House. President Carter originally installed the panels, but President Reagan had them removed when he reached office. President Obama installed new solar panels in 2014.

Throughout the meeting, Clinton revisited her solar panel goal to combat climate change and push the United States to cleaner energy sources.

"The technology's much better now. I would really welcome the idea of trying to set up the example, be a good model and to make a difference," she said (Laura Meckler, *Wall Street Journal*, Jan. 5). **-- AK**

OFFSHORE WIND:

NOAA, BOEM weigh local 'attitudes' on turbine farms

Emily Yehle, E&E reporter

Published: Wednesday, January 6, 2016

Federal agencies plan to survey residents of North Carolina and South Carolina on their support of proposed wind farm development off their coasts.

The Bureau of Ocean Energy Management will use the survey's results in evaluating commercial leases across more than 300,000 acres of federal waters. North Carolina's outer continental shelf is the latest area that the Interior Department has eyed for commercial wind development (*Greenwire*, Sept. 17, 2015).

BOEM and the National Oceanic and Atmospheric Administration will work together to conduct the survey, which aims to gather responses from 4,000 residents over four months, according to a notice in the *Federal Register*.

Theresa Goedeke, a social scientist with NOAA's National Ocean Service, said it will be the first time NOAA and BOEM have worked together to find out how residents in the area feel about wind energy development.

"NOAA researchers would like to understand how residents' knowledge, beliefs, social values, and attitudes relative to local marine and coastal landscapes vary across community geography, and how this variation influences their comfort level with potential offshore wind energy development in their area," she said in an email. "We hope to identify which factors are most important to residents when deciding whether to support or oppose offshore wind energy projects."

BOEM plans to use the survey's results as part of its environmental reviews on leases. It is one of many that BOEM is conducting with other agencies to evaluate the effects of outer continental shelf activities on "natural, historical and human resources," according to Brandi Carrier, an archaeologist and the agency's Atlantic regional preservation officer.

In September, BOEM concluded that leasing waters off North Carolina's coast would have no significant impacts on the ocean or its users. It will next decide whether to issue leases.

But some coastal residents have voiced concerns over how a view of turbines will affect property values and tourism. Bald Head Island, for example, passed a resolution last month asking BOEM to move wind farms at least 20 miles offshore, according to *The StarNews*.

BOEM has already significantly reduced the area for wind energy development in response to concerns from the National Park Service, the Coast Guard and coastal residents. The final three wind energy areas include a 122,000-acre site 28 miles off the coast of Kitty Hawk so as to not affect the view. Two additional areas of 52,000 acres and 134,000 acres are closer, beginning about 12 miles off Cape Fear.

NATURAL GAS:

Leak wreaks havoc on L.A. neighborhood

Published: Wednesday, January 6, 2016

The Los Angeles neighborhood of Porter Ranch remains mostly deserted as every day enough methane to fill the Empire State Building spews from the nation's fourth-largest underground natural gas storage facility.

Most of the 30,000 residents along the north rim of the San Fernando Valley have evacuated because of the massive leak from the storage field that Southern California Gas Co., a subsidiary of San Diego company Sempra Energy, said could take two months to cap (*EnergyWire*, Jan. 5).

"Life there is not on hold -- it's on the edge and it's on the brink of pandemonium," said Mitchell Englander, Porter Ranch's representative on the Los Angeles City Council. "People are living with fear, uncertainty and doubt."

Southern California Gas has set up a storefront in a nearby mall to assist residents with relocation, air filtration and claims, but Los Angeles city officials and some residents have already filed lawsuits.

With company stocks down 8.2 percent since the leak started in October 2015, Sempra could need to use all of its at least $1 billion insurance policy to cover costs.

The leak comes as California tries to crack down on greenhouse gas emissions.

"We overregulate virtually every industry in California, yet we have some of the softest regulations on natural gas storage fields," Englander said. "It's astonishing to me" (James Nash, Bloomberg/*Fuel Fix*, Jan. 5). **-- DTB**

FEDERAL WORKFORCE:

Employees optimistic about 2016

Published: Wednesday, January 6, 2016

With the approval of a federal budget in December 2015 that did no harm to federal workers, National Federation of Federal Employees President William Dougan believes government employees have reason to be optimistic this year.

"With the Obama administration entering its final full year, we might see the White House do more for the

federal employees that have made big sacrifices in recent years in the name of deficit reduction," Dougan said. "The economy has improved steadily under President Obama's administration, and that could mean a better pay adjustment for federal employees."

Even staunch Republicans have agreed that the federal workforce has shifted from the defensive to a more offensive role, which seeks to initiate positive change.

"We've got to trust our federal workforce to make the best decisions, not only for themselves but for the United States government," said Rep. Mark Meadows (R-N.C.), chairman of the House subcommittee that oversees the federal workforce.

In 2016, Meadows said one overreaching goal is to make sure employees' voices are heard. He also would like to see discussions about U.S. Postal Service and civil reform take place this year. Those discussions could include balancing federal employee compensation commensurate with their duties, meaning raises for some, and addressing poor work performance, which could lead to disciplinary action (Joe Davidson, *Washington Post*, Jan. 5). **-- AK**

ELECTRIC VEHICLES:

Companies show off sleek concept cars

Published: Wednesday, January 6, 2016

Auto companies are rolling out their latest electric vehicle prototypes this week at the Consumer Electronics Show in Las Vegas.

New vehicles from automakers like Chevrolet, Volkswagen and new player Faraday Future could shake up the market for zero-emission rides.

The Chevrolet Bolt -- General Motors' first all-electric car -- has a maximum speed of more than 90 miles per hour. The company says it has more legroom than similar models. It's expected to go into production near the end of the year (Greg Gardner, *Detroit Free Press*, Jan. 5).

Volkswagen won't have to worry about emissions tests with a new electric Microbus concept model it unveiled this week. The automaker says the vehicle has a 373-mile range and is based on its long-running line of vans.

"This significant innovation will lead to huge changes in the development of electric-powered Volkswagens in the years to come, from body and interior design, to packaging and drive characteristics," the company said in a statement.

The company also showed off an electric Golf Touch compact car that it said was "close to production" (Michael Martinez, *Detroit News*, Jan. 5).

Newcomer Faraday Future's 1,000-horsepower single-seater Batmobile-like car promises to attract attention at the high end of the market.

The car also has four engines -- one for each wheel.

The company is set to break ground later this year on a $1 billion manufacturing plant in Nevada (Tom Randall, Bloomberg, Jan. 5). **-- SP**

WISCONSIN:

GOP bills would shrink environmental regs

Published: Wednesday, January 6, 2016

Wisconsin lawmakers yesterday discussed several Republican bills, some of which seek to shrink environmental protections, expand property rights and limit powers of the local government.

During a hearing at the state Capitol, the state Assembly's Environment and Forestry Committee recognized a Republican-backed bill that looks to rewrite regulations dealing with waterways and surrounding land. The bill currently encompasses lake beds, wetlands, piers, boathouses and beaches, but amendments could mean landowners would have more leeway to build in sensitive areas.

Rep. Adam Jarchow (R) said the bill looks to rein in the authority of the Department of Natural Resources and restore property rights to owners.

But Pam Biersach, director of the Bureau of Watershed Management, said the language in the bill conflicts with federal regulations and would slow the statewide approval process.

Concerns raised by DNR and the Army Corps of Engineers prompted lawmakers to delay the bill's passage.

In a separate action, two Republican lawmakers said they were scaling back a proposal to limit local governments' ability to develop historical preservation regulations (Jason Stein, *Milwaukee Journal Sentinel*, Jan. 5). **-- AK**

SECURITY:

EPRI's Lee discusses efforts to address cyberthreats facing E.U.

Published: Wednesday, January 6, 2016

A recent study by the E.U. Agency for Network and Information Security found that between 25 and 30 percent of E.U. member states have not addressed issues relating to cybersecurity. How do the European Union's cyberthreats differ from those facing the United States, and what steps is the European Commission taking to address threats? During today's OnPoint, Annabelle Lee, a senior technical executive and a cybersecurity expert at the Electric Power Research Institute, and an appointed member of a European Commission cybersecurity panel, discusses the unique cybersecurity challenges facing Europe as it works to advance its electric power grid.

Click here to watch today's OnPoint.

AN E&E PUBLISHING SERVICE

CLIMATEWIRE — Thu., January 7, 2016

READ FULL EDITION

Republican voters in New Hampshire are strongly leaning toward a presidential candidate who describes climate

1.POLITICS:

In moderate N.H., a climate skeptic runs strong

change as a hoax, propelling some GOP operatives to believe the state's long record of selecting establishment figures could be broken when ballots are cast in 33 days.

TODAY'S STORIES

2.CALIFORNIA:

Governor orders emergency steps to deal with toxic methane leak

3.NATIONS:

China's demolitions pose hidden threat to climate action

4.BUSINESS:

DOE finds renewable standards reaped billions in benefits

5.AUTOS:

2015 was biggest year for car sales in U.S. history

6.AGRICULTURE:

Are rich-country food systems more vulnerable to climate change?

7.TECHNOLOGY:

Researchers aim to drain batteries to improve safety

8.EMISSIONS:

Can artificial trees help save the planet?

9.HEALTH:

Zika's spread linked to climate change

10.SCIENCE:

New cloud data promise 'sea change' in climate knowledge

11.WEATHER:

Move over El Niño; here comes La Niña

AN E&E PUBLISHING SERVICE

ENERGYWIRE — Thu., January 7, 2016

READ FULL EDITION

1.METHANE:

ConocoPhillips slashed emissions 23% in 2014

One of the most methane-dirty oil companies is cleaning up its act. ConocoPhillips Co.'s efforts to curb methane leaks in New Mexico's San Juan Basin resulted in major reductions to its greenhouse gas contributions in 2014 -- even as production continued to climb, according to an *EnergyWire* analysis.

ELECTRICITY

2.CLEAN POWER PLAN:

Defiant Ala. pledges to wait out court ruling

3.CLEAN POWER PLAN:

Ex-Ky. energy chief wants state to craft its own strategy

OIL AND GAS

4.KEYSTONE XL:
Enviros wield TransCanada challenge against trade deal
5.LAW:
Pa. royalties settlement on hold while AG fights Chesapeake
6.REGULATION:
Pa. prepares to finalize surface-impact rules for Marcellus Shale
7.ENFORCEMENT:
Pa. fines Kinder Morgan for storage-tank violations
8.CARBON CAPTURE:
Statoil to try storing CO2 in North Sea
9.FINANCE:
Deadline looms for oil sands hostile takeover bid
10.FINANCE:
Oil field budget cuts worse than in '80s oil bust -- report
11.POLITICS:
Oil industry's long give-and-take with Obama administration

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turley.jennifer@epa.gov

To: Bunker, Byron[bunker.byron@epa.gov]
From: Steiner, Michael, Dr. (K-G)
Sent: Fri 1/8/2016 7:41:54 PM
Subject: Detroit motor show

Hallo Byron,

please let me know, if you will visit the Detroit Motor Show
Monday or Tuesday.
I would appreciate to have a talk and give you a short tour on
the new models of the different VW-group brands. I will be availlable.
Please call me on my mobile: +491709112854
Thank you,

Michael

To: Steiner, Michael, Dr. (K-G)[michael.steiner1@volkswagen.de]
From: Bunker, Byron
Sent: Sat 1/9/2016 6:40:48 PM
Subject: RE: Detroit motor show

Hello Dr. Steiner,

I will be at the Auto Show on Monday visiting with a small delegation from EPA, CARB and Environment Canada. We are planning to visit the Volkswagen display at 1:25 PM. It would be very nice if we were able to see you during our visit to the Volkswagen display. We are also expecting to meet with Dr. Stadler at 5:00 PM at the Audi display. Perhaps this might be one additional opportunity to visit.

I hope that you have safe travels to Detroit.

Best regards,

Byron

****

Byron Bunker

Director Compliance Division

Office of Transportation and Air Quality

Environmental Protection Agency

2000 Traverwood Drive

Ann Arbor, MI 48105

Bunker.Byron@epa.gov

Phone: (734) 214-4155

Mobile: (734) 353-9623

****

From: Steiner, Michael, Dr. (K-G) [mailto:michael.steiner1@volkswagen.de]
Sent: Friday, January 08, 2016 2:42 PM
To: Bunker, Byron
Subject: Detroit motor show

Hallo Byron,

please let me know, if you will visit the Detroit Motor Show
Monday or Tuesday.
I would appreciate to have a talk and give you a short tour on
the new models of the different VW-group brands. I will be availlable.
Please call me on my mobile: **Ex. 6**
Thank you,

Michael

To: Snyder, Jim[Snyder.Jim@epa.gov]; French, Roberts[french.roberts@epa.gov]
From: Ex. 7
Sent: Tue 1/12/2016 8:40:47 PM
Subject: CREE Deterioration Factor for PHEV

Hello Jim and Rob:

I am writing to ask if you would have about 30 minutes available to discuss a CREE DF proposal for PHEV. The intent is to address adjustment of the Utility Factor over full useful life.

Would you have some time on Wednesday or Thursday of this week?

Best regards,

Ex. 7

Ex. 7

Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone:

Cell: (Ex. 7

Fax: (

E-Mai

Ex. 7

To: Snyder, Jim[Snyder.Jim@epa.gov]
From: Rodgers, William (EEO)
Sent: Wed 1/13/2016 5:05:56 PM
Subject: 20F Road load derivation

Hi Jim,

When preconditioning a test car for 20F certification confirmatory or surveillance testing, does your lab most often run the pre conditioning and road load derivations inside the environmental cell at 20F? Or do they use SAE Option 1 or Option 2 (below)?

If my memory serves me, I believe they typical perform two Highway cycles for pre conditioning of 68-86F testing, but clarification on what's used for 20F testing would be appreciated (referenced in 1c below). Thanks.

SAE 2264 - Road load derivation

6.11 Special provisions for Testing at 20°F (-7°c)

Set coefficients for testing performed at 20°F (-7°C) may be developed by one of the following two metho

1) Set coefficients may be derived for 20°F testing using the procedures in this document w modifications:

   a. The procedures in Section 6 are performed in an environmental test site at 20°F. Th prescribed in section 6.3.1 should be extended to a minimum of 12 h. However; a shorte a minimum of 4 h may be used if consistent with good engineering judgment.

   b. If actual 20°F target coefficients are not available, multiply each term (i.e., F_0, F_1, F_2) Target coefficients by 1.1 and use these as the 20°F Target coefficients.

   c. Optionally, two consecutive "505" cycles (the first 505 seconds of the UDDS cycle) precondition the vehicle in-lieu of the two consecutive HWFET cycles specified in Section

2) Set coefficients (D_x) derived at 68-86°F may be used for testing at 20°F (-7°C), if consistent with g judegment.

Regards,

Bill Rodgers

Emissions Certification Engineer

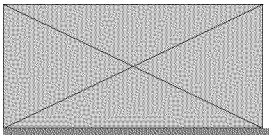
Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone (248) 754-4219

E-Mail: william.rodgers@vw.com

To: Bunker, Byron[bunker.byron@epa.gov]
From: Transportation Law360
Sent: Fri 1/15/2016 8:56:22 AM
Subject: Cuomo's Infrastructure Push May Bet Big On Private Players



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Friday, January 15, 2016

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New Jersey lawmakers have proposed measures to increase legislative oversight of the Port Authority of New York and New Jersey in hopes of boosting transparency at the scandal-plagued agency and closing the gap between the two states' visions for reform.

NJ Justices Uphold DOT Right To Curtail Access To Property

The New Jersey Supreme Court on Thursday refused a company's challenge to a road-widening plan that will reduce parking and impede access to its building, saying the plan is valid under existing law prioritizing the state's interest in access to its highways and roads.

ANALYSIS

COMPANIES

AT&T Inc.

Alpha Natural Resourc Inc.

Amazon. Inc.

Americar Associati for Justice

Americar Internatic Group Inc.

Americar Medical Respons Inc.

Apple Inc.

Audi AG

Bank of

Cuomo's Infrastructure Push May Bet Big On Private Players

The ambitious transportation and infrastructure improvements in New York Gov. Andrew Cuomo's sprawling 2016 agenda are raising questions of who'll benefit the most from the upgrades and how big a role private developers will play in executing the plans, experts say.

AVIATION

Malaysia Air Hit With Lawsuit By Family Of US Victim

The family of one of the American victims onboard missing Malaysia Air Flight MH370 hit the airline with a lawsuit in D.C. federal court Tuesday blaming the carrier for his death.

AUTOMOTIVE

Uber Fined $7.6M, Found In Contempt By Calif. Regulator

The California Public Utilities Commission said on Thursday that it had slapped an Uber Technologies Inc. subsidiary with a $7.6 million fine and had found it in contempt for failing to comply with requests that it turn over driver-safety information to the state agency.

Injured Driver Reckons With Pre-Crash Back Pain In GM Trial

The Oklahoma man alleging he suffered "severe" neck and back injuries from his 2014 accident in a Saturn Ion took the witness stand Thursday in his ongoing ignition switch trial against General Motors and acknowledged his more than 25-year history of sequential spinal problems ever since an industrial accident he experienced in 1988.

Porsche-Only Emissions MDL Makes No Sense, Feds Say

The U.S. Department of Justice said a separate multidistrict litigation for emissions fraud claims against Porsche over 3-liter diesel engines shouldn't be created on top of the one consolidating similar cases against Volkswagen, urging the MDL panel Wednesday to keep all the cases together in California.

Mercedes Buyer Drops Out Of Suit Over Leaky ACs

A van rental company has abandoned a putative class action alleging Mercedes-Benz USA LLC knowingly sold Sprinter vans with air conditioning units that leaked and caused water damage, agreeing in California federal court Tuesday to dismiss its claims.

AIG's Duty Unclear In French BMW Sensor Row, Judge Says

An Ohio federal judge on Thursday kept alive a Nordson Corp. unit's lawsuit alleging an AIG subsidiary wrongfully denied it coverage in a French civil proceeding over allegedly defective temperature sensors in BMW and Peugeot vehicles, saying the case involves disputed issues of material fact and novel legal questions.

COMPANIES

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Alpha Natural Resourc Inc.

Amazon. Inc.

Americar Associati for Justice

Americar Internatic Group Inc.

Americar Medical Respons Inc.

Apple Inc.

Audi AG

Bank of America Corporat

Best Buy Co.

Center for Strategic and Internatic Studies

Chipotle Mexican Grill, Inc.

Citigroup

Subaru Backs Oil Defect Deal, But Doubts Merits Of Claims

Subaru on Thursday threw its support behind a settlement resolving a proposed class action over an alleged engine defect that drivers said caused several vehicle models to excessively consume oil, but told a New Jersey federal judge it still has doubts about the merits of the drivers' claims.

Renault Raided By French Authorities In Emissions Probe

Groupe Renault disclosed Thursday that French authorities have raided its headquarters and two other locations as part of their investigation into the use of defeat devices following Volkswagen AG's admission that it used software to bypass air pollution emissions standards.

TRUCKING

Driver Suit Says Mack Trucks Hid Engine Part Defect

The owner of a Mack Truck hit the company with a lawsuit in Massachusetts federal court Wednesday alleging that it failed to inform him of a known engine defect that caused a "catastrophic engine failure" on a highway.

LOGISTICS

2nd Circ. Offers No Relief In Ambulance Co.'s NLRB Suit

In an opinion issued Thursday, a Second Circuit panel said it won't block the National Labor Relations Board's order requiring American Medical Response of Connecticut Inc. to reinstate an employee fired for complaining about the company's new car inspection policy.

EU Committee Advances Novel Cybersecurity Rules

A European parliamentary committee on Thursday backed a proposal that would require critical infrastructure operators and digital service providers such as Google and Amazon to maintain appropriate security measures and report major data breaches, moving the bloc's first-ever cybersecurity rules a step closer to enactment.

Enviros Want 'Biased' FERC Probed For Pipeline Leanings

A host of environmental groups and activists joined the Delaware Riverkeeper Network on Thursday in urging Senate Democrats to request an investigation of the Federal Energy Regulatory Commission, which they say has become far too cozy with the energy pipeline industry it's supposed to regulate.

MARITIME

COMPANIES

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Amazon. Inc.

Americar Associati for Justice

Americar Internatic Group Inc.

Americar Medical Respons Inc.

Apple Inc.

Audi AG

Bank of America Corporat

Best Buy Co.

Center for Strategic and Internatic Studies

Chipotle Mexican Grill, Inc.

Citigroup

Hong Kong Court Says Cargo Row Can Continue On Mainland

A Hong Kong judge has ruled that a Greek shipping company is still on the hook for charges in Chinese court that it misdelivered a massive cargo of iron ore, saying the company waited too long to highlight the arbitration terms of the shipping contract.

$1B Coast Guard Icebreakers Planned For Arctic

The U.S. Coast Guard revealed plans Wednesday to acquire two new icebreakers, estimated to cost about $1 billion each, to protect the shipping activity that has grown with the melting of Arctic ice.

LEGAL INDUSTRY

New Year's Resolutions For Ambitious Partners

You've already made partner and established your practice. This year, why not resolve to give your career a jump start by being good to your clients and yourself? Here are three ways to energize your work life in 2016.

Reed Smith Serves Up Layoffs As It Looks To Stay Lean

Reed Smith LLP announced on Thursday that it had launched a restructuring effort, which includes laying off 45 attorneys and related staff, as it looks to stay atop shifting market demand and other industry changes.

Citibank Sues Ex-Dewey Chair Davis Over Unpaid Loan

Citibank has sued former Dewey & LeBoeuf LLP Chairman Steven Davis in New York state court for nearly $400,000 to recover principal, interest and other expenses on an unpaid loan that was originally taken out for the benefit of the now-shuttered law firm.

SEC Fines State Street, Sues BigLaw Atty Over Pay-To-Play

The U.S. Securities and Exchange Commission on Thursday said a State Street Corp. unit has agreed to pay $12 million to settle allegations that it took part in a pay-to-play scheme to win servicing contracts for Ohio pension funds, while a Nelson Mullins Riley & Scarborough LLP partner is facing accusations of facilitating the purported scheme.

Law360's Weekly Verdict: Legal Lions & Lambs

Apple attorneys from Orrick Herrington & Sutcliffe LLP and Milbank Tweed Hadley & McCloy LLP took down an unfavorable, multimillion-dollar judicial decision in a federal patent case in Texas, leading this week's pride of legal lions. Our legal lambs are led by a New York litigator who lost a post-Newman appeal for a client convicted of insider trading.

Law Firm In Massey Deal Is Bankrupt, Facing Client Suits

A West Virginia personal injury firm that played a role in securing a $265 million payment to Massey Energy shareholders filed for bankruptcy Wednesday, saying it wanted to resolve

COMPANIES

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Chipotle Mexican Grill, Inc.

Citigroup

several claims against it, including two malpractice suits.

Ex-Litchfield Atty Fights To Keep Sex Q&A Bias Case Alive

A former Litchfield Cavo LLP associate, who claims her former boss probed into her sex life during lunch conversations and regaled her with details about his affinity for strip clubs, told a New York federal court Wednesday to reject the firm's bid to toss the discrimination case in favor of arbitration.

Call For Participants: Law360's 2016 Editorial Advisory Boards

Law360 is looking for avid readers of its publications to serve as members on its 2016 editorial advisory boards.

Law360 Closed For Martin Luther King Jr. Day

The offices of Law360 will be closed Monday for the Martin Luther King Jr. holiday. Newsletter service will resume Tuesday, Jan. 19.

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Fuji Heavy Industries

General Dynamics Corporation

General Motors

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Huntington Ingalls Industries Inc.

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Long Island Rail Road Co.

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Norfolk Southern Corporation

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Hartline Dacus

Haynes and Boone

Hilliard Munoz

Hughes Hubbard

Hunton & Williams

Ice Miller

Jones Day

Kacvinsky Daisak

Kenyon & Kenyon

Litchfield Cavo

McCormick Barstow

McCuneWright LLP

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Morvillo LLP

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Quarles & Brady

Rhoads & Sinon

Robbins Russell

Robinson Donovan

Ropes & Gray

Rose Law

Shearman & Sterling

Simpson Thacher

Skadden

Slaughter and May

Statman Harris

Stinson Leonard

Taft Stettinius

Thacker Martinsek

Tucker Arensberg

Veen Firm

GOVERNMENT AGENCIES
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Government Accountability Office

Port Authority of New York & New Jersey

Environmental Protection Agency

Federal Bureau of Investigation

Federal Energy Regulatory Commission

General Services Administration

National Highway Traffic Safety Administration

National Labor Relations Board

Surface Transportation Board

U.S. Coast Guard

U.S. Department of Justice

U.S. Department of Transportation

U.S. Postal Service

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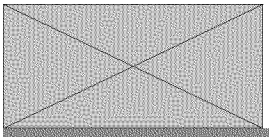
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From: Transportation Law360
Sent: Fri 1/15/2016 9:07:54 AM
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New Jersey lawmakers have proposed measures to increase legislative oversight of the Port Authority of New York and New Jersey in hopes of boosting transparency at the scandal-plagued agency and closing the gap between the two states' visions for reform.

NJ Justices Uphold DOT Right To Curtail Access To Property

The New Jersey Supreme Court on Thursday refused a company's challenge to a road-widening plan that will reduce parking and impede access to its building, saying the plan is valid under existing law prioritizing the state's interest in access to its highways and roads.

ANALYSIS

COMPANIES

AT&T Inc.

Alpha Natural Resourc Inc.

Amazon. Inc.

Americar Associati for Justice

Americar Internatic Group Inc.

Americar Medical Respons Inc.

Apple Inc.

Audi AG

Bank of

Cuomo's Infrastructure Push May Bet Big On Private Players

The ambitious transportation and infrastructure improvements in New York Gov. Andrew Cuomo's sprawling 2016 agenda are raising questions of who'll benefit the most from the upgrades and how big a role private developers will play in executing the plans, experts say.

AVIATION

Malaysia Air Hit With Lawsuit By Family Of US Victim

The family of one of the American victims onboard missing Malaysia Air Flight MH370 hit the airline with a lawsuit in D.C. federal court Tuesday blaming the carrier for his death.

AUTOMOTIVE

Uber Fined $7.6M, Found In Contempt By Calif. Regulator

The California Public Utilities Commission said on Thursday that it had slapped an Uber Technologies Inc. subsidiary with a $7.6 million fine and had found it in contempt for failing to comply with requests that it turn over driver-safety information to the state agency.

Injured Driver Reckons With Pre-Crash Back Pain In GM Trial

The Oklahoma man alleging he suffered "severe" neck and back injuries from his 2014 accident in a Saturn Ion took the witness stand Thursday in his ongoing ignition switch trial against General Motors and acknowledged his more than 25-year history of sequential spinal problems ever since an industrial accident he experienced in 1988.

Porsche-Only Emissions MDL Makes No Sense, Feds Say

The U.S. Department of Justice said a separate multidistrict litigation for emissions fraud claims against Porsche over 3-liter diesel engines shouldn't be created on top of the one consolidating similar cases against Volkswagen, urging the MDL panel Wednesday to keep all the cases together in California.

Mercedes Buyer Drops Out Of Suit Over Leaky ACs

A van rental company has abandoned a putative class action alleging Mercedes-Benz USA LLC knowingly sold Sprinter vans with air conditioning units that leaked and caused water damage, agreeing in California federal court Tuesday to dismiss its claims.

AIG's Duty Unclear In French BMW Sensor Row, Judge Says

An Ohio federal judge on Thursday kept alive a Nordson Corp. unit's lawsuit alleging an AIG subsidiary wrongfully denied it coverage in a French civil proceeding over allegedly defective temperature sensors in BMW and Peugeot vehicles, saying the case involves disputed issues of material fact and novel legal questions.

COMPANIES

AT&T Inc.

Alpha Natural Resourc Inc.

Amazon. Inc.

Americar Associati for Justice

Americar Internatic Group Inc.

Americar Medical Respons Inc.

Apple Inc.

Audi AG

Bank of America Corporat

Best Buy Co.

Center for Strategic and Internatic Studies

Chipotle Mexican Grill, Inc.

Citigroup

Subaru Backs Oil Defect Deal, But Doubts Merits Of Claims

Subaru on Thursday threw its support behind a settlement resolving a proposed class action over an alleged engine defect that drivers said caused several vehicle models to excessively consume oil, but told a New Jersey federal judge it still has doubts about the merits of the drivers' claims.

Renault Raided By French Authorities In Emissions Probe

Groupe Renault disclosed Thursday that French authorities have raided its headquarters and two other locations as part of their investigation into the use of defeat devices following Volkswagen AG's admission that it used software to bypass air pollution emissions standards.

TRUCKING

Driver Suit Says Mack Trucks Hid Engine Part Defect

The owner of a Mack Truck hit the company with a lawsuit in Massachusetts federal court Wednesday alleging that it failed to inform him of a known engine defect that caused a "catastrophic engine failure" on a highway.

LOGISTICS

2nd Circ. Offers No Relief In Ambulance Co.'s NLRB Suit

In an opinion issued Thursday, a Second Circuit panel said it won't block the National Labor Relations Board's order requiring American Medical Response of Connecticut Inc. to reinstate an employee fired for complaining about the company's new car inspection policy.

EU Committee Advances Novel Cybersecurity Rules

A European parliamentary committee on Thursday backed a proposal that would require critical infrastructure operators and digital service providers such as Google and Amazon to maintain appropriate security measures and report major data breaches, moving the bloc's first-ever cybersecurity rules a step closer to enactment.

Enviros Want 'Biased' FERC Probed For Pipeline Leanings

A host of environmental groups and activists joined the Delaware Riverkeeper Network on Thursday in urging Senate Democrats to request an investigation of the Federal Energy Regulatory Commission, which they say has become far too cozy with the energy pipeline industry it's supposed to regulate.

MARITIME

COMPANIES

AT&T Inc.

Alpha Natural Resourc Inc.

Amazon. Inc.

Americar Associati for Justice

Americar Internatic Group Inc.

Americar Medical Respons Inc.

Apple Inc.

Audi AG

Bank of America Corporat

Best Buy Co.

Center for Strategic and Internatic Studies

Chipotle Mexican Grill, Inc.

Citigroup

Hong Kong Court Says Cargo Row Can Continue On Mainland

A Hong Kong judge has ruled that a Greek shipping company is still on the hook for charges in Chinese court that it misdelivered a massive cargo of iron ore, saying the company waited too long to highlight the arbitration terms of the shipping contract.

$1B Coast Guard Icebreakers Planned For Arctic

The U.S. Coast Guard revealed plans Wednesday to acquire two new icebreakers, estimated to cost about $1 billion each, to protect the shipping activity that has grown with the melting of Arctic ice.

LEGAL INDUSTRY

New Year's Resolutions For Ambitious Partners

You've already made partner and established your practice. This year, why not resolve to give your career a jump start by being good to your clients and yourself? Here are three ways to energize your work life in 2016.

Reed Smith Serves Up Layoffs As It Looks To Stay Lean

Reed Smith LLP announced on Thursday that it had launched a restructuring effort, which includes laying off 45 attorneys and related staff, as it looks to stay atop shifting market demand and other industry changes.

Citibank Sues Ex-Dewey Chair Davis Over Unpaid Loan

Citibank has sued former Dewey & LeBoeuf LLP Chairman Steven Davis in New York state court for nearly $400,000 to recover principal, interest and other expenses on an unpaid loan that was originally taken out for the benefit of the now-shuttered law firm.

SEC Fines State Street, Sues BigLaw Atty Over Pay-To-Play

The U.S. Securities and Exchange Commission on Thursday said a State Street Corp. unit has agreed to pay $12 million to settle allegations that it took part in a pay-to-play scheme to win servicing contracts for Ohio pension funds, while a Nelson Mullins Riley & Scarborough LLP partner is facing accusations of facilitating the purported scheme.

Law360's Weekly Verdict: Legal Lions & Lambs

Apple attorneys from Orrick Herrington & Sutcliffe LLP and Milbank Tweed Hadley & McCloy LLP took down an unfavorable, multimillion-dollar judicial decision in a federal patent case in Texas, leading this week's pride of legal lions. Our legal lambs are led by a New York litigator who lost a post-Newman appeal for a client convicted of insider trading.

Law Firm In Massey Deal Is Bankrupt, Facing Client Suits

A West Virginia personal injury firm that played a role in securing a $265 million payment to Massey Energy shareholders filed for bankruptcy Wednesday, saying it wanted to resolve

COMPANIES

AT&T Inc.

Alpha Natural Resourc Inc.

Amazon. Inc.

Americar Associati for Justice

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Chipotle Mexican Grill, Inc.

Citigroup

several claims against it, including two malpractice suits.

Ex-Litchfield Atty Fights To Keep Sex Q&A Bias Case Alive

A former Litchfield Cavo LLP associate, who claims her former boss probed into her sex life during lunch conversations and regaled her with details about his affinity for strip clubs, told a New York federal court Wednesday to reject the firm's bid to toss the discrimination case in favor of arbitration.

Call For Participants: Law360's 2016 Editorial Advisory Boards

Law360 is looking for avid readers of its publications to serve as members on its 2016 editorial advisory boards.

Law360 Closed For Martin Luther King Jr. Day

The offices of Law360 will be closed Monday for the Martin Luther King Jr. holiday. Newsletter service will resume Tuesday, Jan. 19.

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Google Inc.

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Internatic
Business
Machine
Corporat

Long
Island
Rail
Road
Co.

Mack
Trucks
Inc.

Malaysia
Airlines
Berhad

Mercede
Benz

Monsant
Compan

Morgan
Stanley

Nordson
Corporat

Norfolk
Southerr
Corporat

Peugeot

Porsche

Shire
PLC

State
Farm

State
Street
Corp.

Subaru
of
America

Inc.

The Boeing Compan

Uber Technolc Inc.

Volkswa

Wi-LAN Inc.

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Bennett Jones

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Carroll Burdick

Chavez & Gertler

Chimicle & Tikellis

Console Law Offices

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Davis Wright

Tremaine

Dentons

Dewey & LeBoeuf

Doar Rieck

Duane Morris

Girard Gibbs

Gordon & Rees

Hagens Berman

Halloran & Sage

Harris Penn

Hartline Dacus

Haynes and Boone

Hilliard Munoz

Hughes Hubbard

Hunton & Williams

Ice Miller

Jones Day

Kacvinsk

Daisak

Kenyon & Kenyon

Kirkland & Ellis

Litchfield Cavo

McCormi Barstow

McCune\ LLP

McKool Smith

Milbank Tweed

Morrison & Foerster

Morvillo Abramov

Morvillo LLP

Nelson Mullins

Orrick Herringtc

Patterso Belknap

Peckar & Abramso

Perkins Coie

Podhurst Orseck

Quarles & Brady

Reed Smith

Rhoads & Sinon

Robbins Russell

Robinson Donovan

Ropes & Gray

Rose Law

Shearman & Sterling

Simpson Thacher

Skadden

Slaughter and May

Statman Harris

Stinson Leonard

Taft Stettinius

Thacker Martinse

Tucker Arensber

Veen Firm

WilmerH

GOVERN
AGENCI

Environn
Protectio
Agency

Federal
Bureau
of
Investiga

Federal
Energy
Regulato
Commiss

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Administ

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Accounta
Office

National
Highway
Traffic
Safety
Administ

National
Labor
Relations
Board

Port
Authority
of New
York &
New
Jersey

Securitie
and
Exchang
Commiss

Surface
Transpor
Board

U.S.

Coast Guard

U.S. Departm of Justice

U.S. Departm of Transpor

U.S. Postal Service

United Nations

COMPANIES
Volkswagen

Facebook

International Business Machines Corporation

State Street Corp.

AT&T Inc.

Alpha Natural Resources, Inc.

Amazon.com Inc.

American Association for Justice

American International Group Inc.

American Medical Response Inc.

Apple Inc.

Audi AG

Bank of America Corporation

Best Buy Co.

Center for Strategic and International Studies

Chipotle Mexican Grill, Inc.

Citigroup Inc.

ClientSmart

Delaware Riverkeeper Network

EisnerAmper LLP

Fuji Heavy Industries

General Dynamics Corporation

General Motors

Google Inc.

Huntington Ingalls Industries Inc.

Insurance Australia

Long Island Rail Road Co.

Mack Trucks Inc.

Malaysia Airlines Berhad

Mercedes-Benz

Monsanto Company

Morgan Stanley

Nordson Corporation

Norfolk Southern Corporation

Peugeot

Porsche

Shire PLC

State Farm

Subaru of America Inc.

The Boeing Company

Uber Technologies Inc.

Wi-LAN Inc.

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Nelson Mullins

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Chimicles & Tikellis

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Cravath Swaine

Davis Wright Tremaine

Dentons

Dewey & LeBoeuf

Doar Rieck

Duane Morris

Girard Gibbs

Gordon & Rees

Hagens Berman

Halloran & Sage

Harris Penn

Hartline Dacus

Haynes and Boone

Hilliard Munoz

Hughes Hubbard

Hunton & Williams

Ice Miller

Jones Day

Kacvinsky Daisak

Kenyon & Kenyon

Litchfield Cavo

McCormick Barstow

McCuneWright LLP

McKool Smith

Milbank Tweed

Morrison & Foerster

Morvillo Abramowitz

Morvillo LLP

Orrick Herrington

Patterson Belknap

Peckar & Abramson

Perkins Coie

Podhurst Orseck

Quarles & Brady

Rhoads & Sinon

Robbins Russell

Robinson Donovan

Ropes & Gray

Rose Law

Shearman & Sterling

Simpson Thacher

Skadden

Slaughter and May

Statman Harris

Stinson Leonard

Taft Stettinius

Thacker Martinsek

Tucker Arensberg

Veen Firm

GOVERNMENT AGENCIES
Securities and Exchange Commission

Government Accountability Office

Port Authority of New York & New Jersey

Environmental Protection Agency

Federal Bureau of Investigation

Federal Energy Regulatory Commission

General Services Administration

National Highway Traffic Safety Administration

National Labor Relations Board

Surface Transportation Board

U.S. Coast Guard

U.S. Department of Justice

U.S. Department of Transportation

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From: Ex. 7
Location: Skype Meeting
Importance: Normal
Subject: CREE DF Proposal
Start Date/Time: Tue 1/19/2016 7:30:00 PM
End Date/Time: Tue 1/19/2016 8:00:00 PM

.....
,,,,,,,
As discussed with Jim Snyder of EPA, Volkswagen would appreciate an opportunity to meet with EPA to discuss a CREE DF proposal for PHEV.
I have added a call-in number to allow participation by VW staff, or others, unable to attend in person.
Best regards,

Ex. 7

Ex. 7
Emission Regulations and Certification
Engineering and Environmental Office
Volkswagen Group of America, Inc.
Phon
Cell: (
Fax: (
E-Ma
Ex. 7

.....

Join Skype Meeting

This is an online meeting for Skype for Business, the professional meetings and communications app formerly known as Lync.

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Conference ID: Non-Responsive
Forgot your dial-in PIN? | Help

.....

To: Geanacopoulos, David[David.Geanacopoulos@vw.com]
From: Grundler, Christopher
Sent: Fri 1/15/2016 9:36:52 PM
Subject: VW Communications

David: you may be interested in what your UK colleagues are saying.

http://www.theguardian.com/environment/2016/jan/13/cutting-diesel-pollution-puts-climate-change-target-at-risk-says-vw-uk-chief

To: Grundler, Christopher[grundler.christopher@epa.gov]
From: Geanacopoulos, David
Sent: Fri 1/15/2016 11:12:55 PM
Subject: RE: VW Communications

OMG. Thanks for sending. Have a great weekend. DG

From: Grundler, Christopher [mailto:grundler.christopher@epa.gov]
Sent: Friday, January 15, 2016 4:37 PM
To: Geanacopoulos, David
Subject: VW Communications

David: you may be interested in what your UK colleagues are saying.

http://www.theguardian.com/environment/2016/jan/13/cutting-diesel-pollution-puts-climate-change-target-at-risk-says-vw-uk-chief

To: Edward Kulschinsky (Kulschinsky.Edward@epa.gov)[Kulschinsky.Edward@epa.gov]
From: Belser, Evan
Sent: Tue 1/19/2016 3:31:24 PM
Subject: Feel free to send either/both to Luc
ENV_ENFORCEMENT-#2565078-v1-VW__complaint_filed (00000002).pdf
ENV_ENFORCEMENT-#2565234-v1-VW__Hausfeld_intervention.PDF

Evan Belser

Chief, Mobile Source Enforcement Branch, Air Enforcement Division

Office of Enforcement and Compliance Assurance

United States Environmental Protection Agency

202-564-6850

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IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc., Defendants.	Civil Action No.

COMPLAINT

The United States of America, by authority of the Attorney General of the United States and at the request of the Administrator of the United States Environmental Protection Agency ("EPA"), files this complaint and alleges as follows:

NATURE OF ACTION

1. This is a civil action brought pursuant to Sections 204 and 205 of the Clean Air Act ("Act"), 42 U.S.C. §§ 7523 and 7524, for injunctive relief and the assessment of civil penalties against Volkswagen AG, Audi AG, Volkswagen Group of America, Inc. ("VWoA"), Volkswagen Group of America Chattanooga Operations, LLC ("VWoA Chattanooga"), Dr. Ing. h.c. F. Porsche AG ("Porsche AG"), and Porsche Cars North America, Inc. (collectively, "VW") for violations of the Act and regulations promulgated thereunder.

JURISDICTION AND VENUE

2. This Court has jurisdiction over the subject matter of and the parties to this action pursuant to Sections 203, 204, and 205 of the Act, 42 U.S.C. §§ 7522, 7523, and 7524, and 28 U.S.C. §§ 1331, 1345, and 1355.

3. This Court has personal jurisdiction over Defendant Volkswagen AG under Mich. Comp. Laws § 600.705 because Volkswagen AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Defendant Volkswagen AG is consistent with due process.

4. Among other things, Defendant Volkswagen AG interacts with Defendant VWoA, its wholly-owned subsidiary, which has an office in Auburn Hills, Michigan and this judicial district, by regularly submitting information to VWoA necessary for VWoA to complete the required applications to obtain certificates of conformity ("COCs") for a significant number of the vehicles Volkswagen AG sells in the United States. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with its wholly-owned subsidiary, Volkswagen AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Volkswagen AG has also attended meetings at, and had other communications with, EPA's Ann Arbor, Michigan Office of Transportation and Air Quality ("OTAQ"), the EPA office in charge of issuing COCs. Further, Volkswagen AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

5. This Court has personal jurisdiction over Defendant VWoA under Mich. Comp. Laws § 600.705 because it transacts business in Michigan. In addition, this Court's exercise of

VW FOIA, EPA 06/20/2017 2017-FFP_037308

jurisdiction over VWoA is consistent with due process.

6. Among other things, VWoA has an Engineering and Environmental Office in Auburn Hills, Michigan from which it interacts with EPA OTAQ in connection with obtaining many of the COCs for vehicles sold in the United States, including many of the light duty diesel vehicles addressed in this Complaint. Further, VWoA delivered or arranged for delivery of many of the vehicles addressed in this Complaint, within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

7. This Court has personal jurisdiction over Defendant Audi AG under Mich. Comp. Laws § 600.705 because Audi AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Audi AG is consistent with due process.

8. Among other things, Audi AG has interacted with VWoA's Auburn Hills, Michigan office by regularly submitting information to VWoA's Auburn Hills office necessary for VWoA to complete the required applications to obtain COCs for the vehicles that Audi AG sells in the United States, including the light duty diesel vehicles addressed in this Complaint. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with VWoA, Audi AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Audi AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Audi AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

9. This Court has personal jurisdiction over Defendant Volkswagen Group of America

VW FOIA, EPA 06/20/2017 2017-FFP_037309

Chattanooga Operations, LLC, under Mich. Comp. Laws § 600.705 because VWoA Chattanooga transacts business in Michigan. In addition, this Court's exercise of jurisdiction over VWoA Chattanooga is consistent with due process.

10. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, VWoA is the corporate parent of VWoA Chattanooga; VWoA Chattanooga manufactures certain Passats; VWoA Chattanooga interacts with VWoA, in connection with vehicle manufacturing and other matters; in connection with this and other interactions with its parent company, VWoA Chattanooga has attended meetings at VWoA's Auburn Hills, Michigan office and/or corresponded, telephoned and otherwise communicated with VWoA's Auburn Hills office. Further, VWoA Chattanooga delivered or arranged for delivery of its cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

11. This Court has personal jurisdiction over Defendant Porsche AG under Mich. Comp. Laws § 600.705 because Porsche AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche AG is consistent with due process.

12. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche AG has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche AG has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor,

VW FOIA, EPA 06/20/2017 2017-FFP_037310

Michigan. Further, Porsche AG delivered or arranged for delivery of Porsche cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

13. This Court has personal jurisdiction over Defendant Porsche Cars North America, Inc. under Mich. Comp. Laws § 600.705 because Porsche Cars North America, Inc. transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche Cars North America, Inc. is consistent with due process.

14. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche Cars North America, Inc. has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche Cars North America, Inc. has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche Cars North America, Inc. has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Porsche Cars North America, Inc. delivered or arranged for delivery of Porsche cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

15. Venue is proper in this jurisdiction pursuant to Sections 204 and 205 of the Act, 42 U.S.C. §§ 7523 and 7524, because violations occurred in this judicial district and VWoA has a corporate office within this judicial district.

VW FOIA, EPA 06/20/2017 2017-FFP_037311

DEFENDANTS

16. Volkswagen AG is a publicly-held German corporation.

17. Volkswagen AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

18. Volkswagen AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

19. Volkswagen Group of America, Inc. is incorporated under the laws of the State of New Jersey, and is a wholly-owned subsidiary of Volkswagen AG.

20. Volkswagen Group of America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

21. Volkswagen Group of America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

22. Volkswagen Group of America Chattanooga Operations, LLC is incorporated under the laws of the State of Tennessee, and is a wholly-owned subsidiary of VWoA.

23. Volkswagen Group of America Chattanooga Operations, LLC is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

24. Volkswagen Group of America Chattanooga Operations, LLC is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

25. Audi AG is a German corporation, and is approximately 99.55% owned by Volkswagen AG.

26. Audi AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

VW FOIA, EPA 06/20/2017 2017-FFP_037312

27. Audi AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

28. Porsche AG is a German corporation, and is wholly-owned by Volkswagen AG.

29. Porsche AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

30. Porsche AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

31. Porsche Cars North America, Inc. is a Delaware corporation, and is a wholly-owned subsidiary of Porsche AG.

32. Porsche Cars North America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

33. Porsche Cars North America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

34. At all times relevant to this action, VW was engaged in the business of manufacturing new motor vehicles, and selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing (or causing the foregoing with respect to) these vehicles in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_037313

STATUTORY AND REGULATORY BACKGROUND

35. This action arises under Title II of the Act, as amended, 42 U.S.C. § 7521 *et seq.*, and the regulations promulgated thereunder, which aim to protect human health and the environment by reducing emissions of nitrogen oxides ("NOx") and other pollutants from mobile sources of air pollution, including new motor vehicles.

36. NOx is a family of highly reactive gases that play a major role in the atmospheric reactions with volatile organic compounds that produce ozone in the atmosphere. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Breathing ozone can also worsen bronchitis, emphysema, and asthma, and can lead to premature death. Children are at greatest risk of experiencing negative health impacts from exposure to ozone. Additionally, recent scientific studies indicate that the direct health effects of NOx are worse than previously understood, including respiratory problems, damage to lung tissue, and premature death.

37. Section 202(a) of the Act, 42 U.S.C. § 7521(a), requires EPA to promulgate emissions standards for new motor vehicles for NOx, and other air pollutants.

38. 40 C.F.R. Part 86 sets emission standards and test procedures for light-duty motor vehicles, including emission standards for NOx. *See* 40 C.F.R. § 86.1811-04.

A. Certificates of Conformity and Prohibition on Uncertified Motor Vehicles

39. Light-duty vehicles must satisfy emission standards for certain air pollutants. 40 C.F.R. §§ 86.1811-04, 86.1811-09, 86.1811-10. EPA administers a certification program to ensure that every new motor vehicle introduced into United States commerce satisfies applicable emission standards. 42 U.S.C. § 7521. Under this program, EPA issues COCs and thereby

VW FOIA, EPA 06/20/2017 2017-FFP_037314

regulates the introduction of new motor vehicles into United States commerce.

40. To obtain a COC, a manufacturer must submit an application to EPA for each model year and for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1843-01. A test group is comprised of vehicles with similar emissions profiles for pollutants regulated under the Act. *See, e.g.,* 40 C.F.R. §§ 86.1803-01, 86.1827-01.

41. Vehicles are covered by a COC only if the vehicles are as described in the manufacturer's application for the COC "in all material respects." 40 C.F.R. § 86.1848-10(c)(6).

42. EPA issues COCs "upon such terms . . . as [the Administrator] may prescribe." 42 U.S.C. § 7525(a)(1); *see also* 40 C.F.R. § 86.1848-01(b) (authorizing EPA to issue COCs on any terms that are necessary and appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

43. Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), prohibits manufacturers of new motor vehicles from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or any person from importing into the United States any new motor vehicle not covered by a COC issued by EPA under regulations prescribed by the Act governing vehicle emission standards. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

B. Prohibition on Defeat Devices and Tampering

44. Each COC application must include, among other things, a list of all auxiliary emission control devices ("AECDs") installed on the vehicles. 40 C.F.R. § 86.1844-01(d)(11).

45. An AECD is "any element of design which senses temperature, vehicle speed, engine [revolutions per minute], transmission gear, manifold vacuum, or any other parameter for

VW FOIA, EPA 06/20/2017 2017-FFP_037315

the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.1803-01.

46. An element of design is "any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine." 40 C.F.R. § 86.1803-01.

47. Each COC application must also include "a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device." 40 C.F.R. § 86.1844-01(d)(11).

48. A motor vehicle containing an AECD that can reasonably be expected to affect emission controls and is not disclosed or justified in the COC application does not conform in all material respects with the COC application, and is therefore not covered by the COC.

49. A "defeat device" is an AECD "that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . . . ." 40 C.F.R. § 86.1803-01.

50. Motor vehicles equipped with defeat devices cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86.1809-01, 86.1809-10, 86.1809-12.

VW FOIA, EPA 06/20/2017 2017-FFP_037316

51. Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." *See also* 40 C.F.R. § 86.1854-12(a)(3)(ii).

52. Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), prohibits any person from removing or rendering inoperative any device or element of design installed on a motor vehicle in compliance with the regulations promulgated under Title II of the Act prior to its sale and delivery to the ultimate purchaser.

53. It is also a violation to cause any of the acts set forth in Section 203(a)(3). 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

C. Reporting Requirements

54. Section 208(a) of the Act, 42 U.S.C. § 7542(a), requires that "[e]very manufacturer of new motor vehicles . . . establish and maintain records, perform tests . . . make reports, and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting in compliance" with Part A of Title II of the Act.

55. Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), prohibits any person from failing or refusing to make reports or provide information to EPA pursuant to Section 208 of the

VW FOIA, EPA 06/20/2017 2017-FFP_037317

Act, 42 U.S.C. § 7542. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

GENERAL ALLEGATIONS

56. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix A to this Complaint ("2.0L Subject Vehicles").

57. Each of the 2.0L Subject Vehicles is equipped with a 2.0 liter diesel engine, and is part of model years 2009-2015.

58. In total, approximately 500,000 2.0L Subject Vehicles were sold in the United States.

59. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for the 2.0L Subject Vehicles.

60. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix B to this Complaint ("3.0L Subject Vehicles").

61. Each of the 3.0L Subject Vehicles is equipped with a 3.0 liter diesel engine, and is part of model years 2009-2016.

62. In total, approximately 80,000 3.0L Subject Vehicles were sold in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_037318

63. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for certain 3.0L Subject Vehicles.

64. Porsche Cars North America, Inc. submitted to EPA, on behalf of itself, and representing Porsche AG, the applications for COCs for certain 3.0L Subject Vehicles.

65. Each COC issued by EPA during the time period relevant to this Complaint states on its face that the certificate covers only those new motor vehicles that conform, in all material respects, to the design specifications provided to EPA in the certificate application for such vehicle.

66. Each application for a COC constitutes a "report [and/or] information the Administrator may reasonably require . . ." to assess compliance with the Act, within the meaning of Section 208(a) of the Act, 42 U.S.C. § 7542(a).

A. The 2.0L Subject Vehicles

67. Each 2.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 2.0L Subject Vehicle.

68. The electronic control module ("ECM") of the 2.0L Subject Vehicles contains software logic and/or calibrations that sense when the vehicle is being tested for compliance with applicable emission standards, based on various inputs including the position of the steering wheel, vehicle speed, the duration of the engine's operation, and barometric pressure. These inputs precisely track the parameters of the federal test procedure ("FTP") and other test cycles used for emission testing required to obtain a COC.

VW FOIA, EPA 06/20/2017 2017-FFP_037319

69. During FTP emission testing, the 2.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration that VW has referred to as the "dyno calibration" (referring to the equipment used in emissions testing, called a dynamometer). At all other times during normal vehicle operation, the 2.0L Subject Vehicles' ECM software run a separate "road calibration" that reduces the effectiveness of the emission control system. In other words, the 2.0L Subject Vehicles' ECM software tracks the parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

70. The COC applications for the 2.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 2.0L Subject Vehicles' COC applications.

71. The 2.0L Subject Vehicles therefore are not covered by a COC.

72. This dual-calibration system results in increased NOx emissions by a factor of up to 40 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

73. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

74. VW entities including at least Volkswagen AG, VWoA and Audi AG knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

VW FOIA, EPA 06/20/2017 2017-FFP_037320

75. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

B. The 3.0L Subject Vehicles

76. Each 3.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 3.0L Subject Vehicles.

77. The ECM of the 3.0L Subject Vehicles contains software logic and/or calibrations that cause the vehicle to perform differently when the vehicle is being tested for compliance with applicable emission standards, based on various inputs that appear to track the FTP and/or other test cycles used for emission testing required to obtain a COC, than when the vehicle is in normal operation and use.

78. During FTP emission testing, the 3.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration referred to as the "temperature conditioning mode." At other times during normal vehicle operation, the 3.0L Subject Vehicles' ECM software run a separate "normal mode" that reduces the effectiveness of the emission control system. In other words, the 3.0L Subject Vehicles' ECM software tracks certain parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

79. The COC applications for the 3.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The

VW FOIA, EPA 06/20/2017 2017-FFP_037321

undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 3.0L Subject Vehicles' COC applications.

80. The 3.0L Subject Vehicles therefore are not covered by a COC.

81. This dual-calibration strategy results in increased NOx emissions by a factor of up to 9 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

82. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

83. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG and Porsche Cars North America, Inc. knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

84. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_037322

C. The Investigations and Concealment

85. In or about May 2014, West Virginia University's Center for Alternative Fuels, Engines & Emissions ("WVU") published results of a study commissioned by the International Council on Clean Transportation, and conducted in collaboration with the California Air Resources Board ("CARB"), that found on-road NOx emissions from two 2.0L VW light duty diesel vehicles (2012 Jetta and 2013 Passat) were significantly higher than the applicable emission standards established by EPA regulations.

86. Beginning in or about May 2014 through the present, CARB, in coordination with EPA, has investigated the reasons for the high in-use emissions, repeatedly questioning representatives from VWoA and Volkswagen AG about WVU's findings.

87. In or about October 2014, those VW entities responded that the increased emissions from the vehicles studied by WVU were attributable to various yet-to-be-identified technical issues with the after treatment emission control systems and in-use conditions not represented by the FTP.

88. VW entities including at least VWoA represented to regulators that the vehicles' software could be optimized to address the excess NOx emissions issue and issued a recall in December 2014 and March 2015 for 2.0L vehicles to address the excess emissions issue.

89. From approximately December 2014 through the present, CARB, in coordination with EPA, conducted its own testing to further investigate the reasons behind the high NOx emissions observed on VW's 2.0L light duty diesel vehicles during real world driving conditions, and to investigate the effectiveness of the recall action. This on-road and laboratory testing showed limited reduction in the rates of emission of NOx of the recalled vehicles, and also

VW FOIA, EPA 06/20/2017 2017-FFP_037323

revealed that the vehicles exhibited different behaviors during real world driving conditions than during FTP emission testing.

90. During the course of this investigation, VW entities including at least VWoA and Volkswagen AG suggested a number of potential technical issues and in-use conditions that might explain the higher emission test results, but none of those issues adequately explained why the 2.0L Subject Vehicles behaved differently while operating on the FTP test cycles versus while being driven on the road.

91. In or about September 2015, VW entities including at least VWoA and Volkswagen AG admitted that these 2.0L motor vehicles contained a defeat device in the form of a software algorithm or algorithms that detect when the vehicle is undergoing emission testing.

92. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 2.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least VWoA and Volkswagen AG.

93. VW entities including at least Volkswagen AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 2.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

94. On October 8, 2015, Mr. Michael Horn, VWoA President and Chief Executive Officer, testified before the United States House of Representatives Subcommittee on Oversight and Investigations Committee on Energy and Commerce, and admitted that VWoA and

VW FOIA, EPA 06/20/2017 2017-FFP_037324

Volkswagen AG's representations to EPA and CARB that the increased NOx emissions from the 2.0L Subject Vehicles were due to technical issues were false.

95. During his October 8, 2015 testimony, Mr. Horn further admitted that the installation of the "defeat device" in the 2.0L Subject Vehicles was a knowing and willful decision to deceive.

96. Even after EPA issued its September 18, 2015 Notice of Violation to Volkswagen AG, Audi AG, and VWoA, and Mr. Horn's testimony before Congress, VW failed to come forward and reveal to regulators that the 3.0L Subject Vehicles contain one or more undisclosed AECDs, including the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode." The existence of this dual calibration strategy was uncovered only as a result of EPA and CARB's diligence.

97. On November 2, 2015, EPA issued a Notice of Violation to Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc., citing violations of the Act related to the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode," and the resultant excess emissions in certain 3.0L light duty diesel vehicles.

98. VW entities including at least Volkswagen AG immediately issued a statement denying that software had been installed in 3.0L light duty diesel vehicles to alter emissions in a prohibited manner.

99. On or about November 23, 2015, VW entities including at least Volkswagen AG and Audi AG admitted that the 3.0L Subject Vehicles contain three undisclosed AECDs, one of which – the temperature conditioning mode – is regarded as a defeat device under the Act and implementing regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_037325

100. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 3.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least Volkswagen AG and Audi AG.

101. VW entities including at least Audi AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 3.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

FIRST CLAIM FOR RELIEF
(Section 203(a)(1): Sale, Offer for Sale, Introduction or Delivery for Introduction into Commerce, or Import of New Motor Vehicles Not Covered by COCs)

102. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

103. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 500,000 2.0L Subject Vehicles that were not covered by COCs (or caused any of the foregoing) because the 2.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 2.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 2.0L Subject Vehicles' emission controls.

104. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 80,000 3.0L Subject Vehicles that were not covered by COCs (or

VW FOIA, EPA 06/20/2017 2017-FFP_037326

caused any of the foregoing) because the 3.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 3.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 3.0L Subject Vehicles' emission controls.

105. VW violated Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), by selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing new motor vehicles that were not covered by a COC, or by causing any of the foregoing acts.

106. Each such violation of Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), is a separate offense with respect to each new motor vehicle.

107. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW is liable for injunctive relief and civil penalties of up to $32,500 per vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

SECOND CLAIM FOR RELIEF
(Section 203(a)(3)(B): Manufacture, Sale, Offer for Sale, or Installation of Defeat Device)

108. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

109. VW entities including at least Volkswagen AG, VWoA and Audi AG manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended for use with, or as part of, motor vehicles, including the road-calibration AECDs installed on the 2.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 2.0L

VW FOIA, EPA 06/20/2017 2017-FFP_037327

Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Volkswagen AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

110. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended or use with, or as part of, motor vehicles, including the normal mode calibration AECDs installed on the 3.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 3.0L Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Audi AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

111. VW entities including at least Volkswagen AG and Audi AG violated Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), by manufacturing, selling, offering for sale, or installing "defeat devices" on new motor vehicles, or by causing any of the foregoing acts.

112. Each part or component that constitutes a "defeat device" manufactured, sold, offered for sale, or installed on new motor vehicles (or the causing thereof) is a separate violation of Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B).

113. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG and Audi AG are liable for injunctive relief and civil penalties of up to $2,750 per part or component that constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $3,750 per part or component that

VW FOIA, EPA 06/20/2017 2017-FFP_037328

constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

THIRD CLAIM FOR RELIEF
(Section 203(a)(3)(A): Tampering)

114. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

115. The road-calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

116. The normal mode calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

117. VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the road-calibration AECDs in the 2.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

118. VW entities including at least Volkswagen AG, Audi AG and Porsche AG violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the normal mode calibration AECDs in the 3.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

VW FOIA, EPA 06/20/2017 2017-FFP_037329

119. Each 2.0L Subject Vehicle equipped with the road-calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

120. Each 3.0L Subject Vehicle equipped with the normal mode calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and Porsche AG of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

121. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG and Porsche AG are liable for injunctive relief and civil penalties of up to $32,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

FOURTH CLAIM FOR RELIEF
(Section 203(a)(2): Reporting Violations)

122. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

123. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to disclose the existence of the road-calibration and/or other AECDs in the COC applications for the 2.0L Subject Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

124. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to disclose the existence of the normal mode calibration and/or other AECDs in the COC applications for the 3.0L Subject

VW FOIA, EPA 06/20/2017 2017-FFP_037330

Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

125. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to provide a justification for the road-calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the road-calibration and/or other AECDs are not a defeat device, in the COC applications for the 2.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

126. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to provide a justification for the normal mode calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the normal mode calibration and/or other AECDs are not a defeat device, in the COC applications for the 3.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

127. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to disclose one or more AECDs in a COC application for a test group of new motor vehicles.

128. VW entities including at least Volkswagen AG, Audi AG and VWoA violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 2.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

VW FOIA, EPA 06/20/2017 2017-FFP_037331

129. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 3.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

130. Each failure to provide reports or information described above is a separate violation of Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2).

131. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. are liable for injunctive relief and civil penalties of up to $32,500 per day of violation of Section 203(a)(2) occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per day of violation for such violations occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff, the United States of America, respectfully requests that the Court provide the following relief:

a. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle not covered by a COC issued by EPA in accordance with the Act and the regulations promulgated thereunder.

b. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the

VW FOIA, EPA 06/20/2017 2017-FFP_037332

foregoing acts) any new motor vehicle equipped with an AECD, except in compliance with the Act and the regulations promulgated thereunder.

c. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle equipped with a defeat device.

d. Permanently enjoin VW from bypassing, defeating, or rendering inoperative any device or element of design installed on or in a new motor vehicle in compliance with regulations promulgated under Title II of the Act.

e. Order VW to take appropriate steps, including, but not limited to, mitigation of excess NOx emissions, to remedy the violations of Sections 203(a)(1), 203(a)(3)(A), and 203(a)(3)(B) alleged above.

f. Enter a judgment that VW is liable to the United States for civil penalties for each violation of Section 203(a) of the Act, and assess civil penalties against VW as follows:

i. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(1) of the Act;

ii. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(A) of the Act;

VW FOIA, EPA 06/20/2017 2017-FFP_037333

iii. up to $2,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $3,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(B) of the Act; and

iv. up to $32,500 per day of violation occurring before January 13, 2009, and up to $37,500 per day of violation occurring on or after January 13, 2009 for violations of Section 203(a)(2) of the Act.

g. Award the United States its costs in this action; and

h. Grant such other and further relief as the Court deems just and proper.

VW FOIA, EPA 06/20/2017 2017-FFP_037334

Respectfully submitted,

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United States Department of Justice
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VW FOIA, EPA 06/20/2017 2017-FFP_037335

United States v. Volkswagen AG, et al.

APPENDIX A TO COMPLAINT

Identification of the 2.0L Subject Vehicles

Model Year	EPA Test Group	Vehicle Make and Model(s)
2009	9VWXV02.035N	VW Jetta, VW Jetta Sportwagen
2009	9VWXV02.0U5N	VW Jetta, VW Jetta Sportwagen
2010	AVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2011	BVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U4S	VW Passat
2013	DVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2013	DVWXV02.0U4S	VW Passat
2014	EVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2014	EVWXV02.0U4S	VW Passat
2015	FVGAV02.0VAL	VW Beetle, VW Beetle Convertible, VW Golf, VW Golf Sportwagen, VW Jetta, VW Passat, Audi A3

United States v. Volkswagen AG, et al.

APPENDIX B TO COMPLAINT

Identification of the 3.0L Subject Vehicles

Model Year	EPA Test Group(s)	Vehicle Make and Model(s)
2009	9ADXT03.03LD	VW Touareg, Audi Q7
2010	AADXT03.03LD	VW Touareg, Audi Q7
2011	BADXT03.02UG BADXT03.03UG	VW Touareg Audi Q7
2012	CADXT03.02UG CADXT03.03UG	VW Touareg Audi Q7
2013	DADXT03.02UG DADXT03.03UG DPRXT03.0CDD	VW Touareg Audi Q7 Cayenne Diesel
2014	EADXT03.02UG EADXT03.03UG EPRXT03.0CDD EADXJ03.04UG	VW Touareg Audi Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2015	FVGAT03.0NU2 FVGAT03.0NU3 FPRXT03.0CDD FVGAJ03.0NU4	VW Touareg Audi: Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2016	GVGAT03.0NU2 GPRXT03.0CDD GVGAJ03.0NU4	VW Touareg Cayenne Diesel A6 quattro, A7 quattro,A8, A8L, Q5

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiffs, v. VOLKSWAGEN AG, AUDI AG, VOLKSWAGEN GROUP OF AMERICA, INC., VOLKSWAGEN GROUP OF AMERICA CHATTANOOGA OPERATIONS, LLC, DR. ING. H.C. F. PORSCHE AG, and PORSCHE CARS NORTH AMERICA, INC., Defendants.	Case No. 2:16-cv-10006 Judge Laurie J. Michelson Magistrate Judge Michael J. Hluchaniuk

MOTION TO INTERVENE AS OF RIGHT BY PLAINTIFF-INTERVENORS MARIA BOURN, DAVID WATSON, STEPHEN VERNER, MARK SCHUMACHER, AND THE CENTER FOR AUTO SAFETY

Date: January 4, 2016

TABLE OF CONTENTS

CONCISE STATEMENT OF THE ISSUES PRESENTED iii
CONTROLLING AUTHORITY iv
TABLE OF AUTHORITIES v
MOTION 1
BRIEF IN SUPPORT 1
I. INTRODUCTION 1
II. FACTS 1
III. ARGUMENT 2
IV. CONCLUSION 6

CONCISE STATEMENT OF THE ISSUES PRESENTED

Maria Bourn, David Watson, Stephen Verner, Mark Sch umacher, and the Center for Auto Safety ("CAS") (collectively, "Prop osed Plaintiff-Intervenors") move to intervene as a matter of right in the insta nt action pursuant to Fed. R. Civ. P. 24(a)(1) and Section 304(b)(1)(B) of the Clean A ir Act ("CAA"), 42 U.S.C. § 7604(b)(1)(B). Should the Proposed Complaint in Intervention be filed? a

Proposed Plaintiff-Intervenors say: Yes

Plaintiff United States of America says: No oppos ition.

Defendants say: No

The Court should say: Yes

VW FOIA, EPA 06/20/2017 2017-FFP_037340

CONTROLLING AUTHORITY

Fed. R. Civ. P. 24(a)(1)

Section 304(b)(1)(B) of the Clean Air Act, 42 U.S.C. § 7604(b)(1)(B)

VW FOIA, EPA 06/20/2017 2017-FFP_037341

TABLE OF AUTHORITIES

Other Authorities

CAA § 302(e), 42 U.S.C. § 7602(e) 5

CAA § 304(a)(1), 42 U.S.C. § 7604(a)(1) 5

CAA § 304(b)(1)(B), 42 U.S.C. § 7604(b)(1)(B) ..... 1, 2, 3 ,6

Rules

Fed. R. Civ. P. 24 ..... 1, 2, 3, 6

Local Rule 7.1 1

VW FOIA, EPA 06/20/2017 2017-FFP_037342

MOTION

Maria Bourn, David Watson, Stephen Verner, Mark Sc humacher, and the Center for Auto Safety ("CAS") (collectively, "Prop osed Plaintiff-Intervenors") move to intervene as a matter of right in the insta nt action. In support of their Motion, the Proposed Plaintiff-Intervenors rely on the facts, law and argument set forth in their Brief in Support, which is hereby incorporated by reference.

In compliance with Local Rule 7.1, the Proposed Pl aintiff-Intervenors have sought concurrence in the relief requested, and cou nsel for Plaintiff, United States of America, have indicated that they do not oppose the relief requested.

BRIEF IN SUPPORT

I. INTRODUCTION

Maria Bourn, David Watson, Stephen Verner, Mark Sch umacher, and the Center for Auto Safety ("CAS") (collectively, "Prop osed Plaintiff-Intervenors") hereby move to intervene as a matter of right in the above-captioned action pursuant to Fed. R. Civ. P. 24(a)(1) and section 304(b)(1)(B) of the Clean Air Act ("CAA"), 42 U.S.C. § 7604(b)(1)(B).

The United States has informed Proposed Plaintiff-Intervenors that it does not oppose their intervention.

II. FACTS

This action was filed on January 4, 2016, by the United States on behalf of the Administrator of the U.S. Environmental Protection Agency. Defendants in this

action are Volkswagen AG ("VWAG"), Volkswagen Group of America, Inc. ("VWoA"), Volkswagen Group of America Chattanooga Operations, LLC ("VWoA Chattanooga"), Audi AG, and Dr. Ing. h.c. F. Porsch e AG and Porsche Cars North America, Inc. (collectively, "Porsche"). [1] The United States' complaint alleges numerous violations of the CAA arising out of Volkswagen's use of "defeat devices" in their diesel vehicles. The United States seeks a permanent injunction against further CAA violations and civil penalties to redress those violations.

On October 9, 2015, and November 5, 2015, Proposed Plaintiff-Intervenors sent notice letters to Volkswagen regarding similar claims to those brought by the United States, as well as for violations of the mot or vehicle emissions laws, regulations, and orders of California, Connecticut,Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Rhode I sland, Vermont, and Washington. *See* Exhibits 1 and 2. Proposed Plaintiff-Intervenors are individuals and one organization who have been harmed by Volksw agen's violations of the CAA. Accordingly, Proposed Plaintiff-Intervenors a re entitled to "intervene as a matter of right" in this action to jointly prosecut e their claims against Volkswagen. *See* CAA § 304(b)(1)(B), 42 U.S.C. § 7604(b)(1)(B); Fed. R. Civ. P. 24.

III. ARGUMENT

Proposed Plaintiff-Intervenors are entitled to int ervene in this action because CAA section 304(b)(1)(B) grants them an uncondition al right to intervene, their motion to intervene is timely, and they have a subs tantial interest in the subject

[1] Unless otherwise indicated herein, all of these def endants will be referred to collectively as "Volkswagen."

VW FOIA, EPA 06/20/2017 2017-FFP_037344

matter of this litigation.

Section 304(b)(1)(B) of the CAA states that in any case in which "the Administrator . . . has commenced and is diligently prosecuting a civil action in a court of the United States . . . to require compliance with [a CAA emission] standard, limitation, or order, . . . any person may intervene as a matter of right. *See* CAA § 304(b)(1)(B), 42 U.S.C. § 7604(b)(1)(B). Furthermore, Rule 24(a)(1) of the Federal Rules of Civil Procedure permits "intervention of right" when a party "is given an unconditional right to intervene by a federal statute." Therefore, based on the right bestowed upon Proposed Plaintiff-Intervenors by CAA § 304(b)(1)(B), Proposed Plaintiff-Intervenors have a right to intervene under Rule 24(a)(1).

Additionally, Proposed Plaintiff-Intervenors' request to intervene is clearly timely, given that it is being filed the same day that the United States filed its complaint against Volkswagen. Given the proximity in time within which Volkswagen will receive the government's complaint and Proposed Plaintiff-Intervenors' complaint in intervention, there could hardly be any argument that Volkswagen would be prejudiced by Proposed Plaintiff-Intervenors joining this action. Proposed Plaintiff-Intervenors also sent notice to Volkswagen by letters dated October 9, 2015, and November 5, 2015, so Volkswagen had prior notice of Proposed Plaintiff-Intervenors' intent to sue Volkswagen for its violations of the CAA.

Lastly, Proposed Plaintiff-Intervenors all have an interest in the prosecution of CAA claims against Volkswagen. Proposed Plaintiff-Intervenors Maria Bourn and David Watson are residents of South San Francisco, California. Bourn is a

VW FOIA, EPA 06/20/2017 2017-FFP_037345

lawyer in San Francisco. Watson is a teacher. In 2015, Bourn and Watson, who are married, purchased a certified, pre-owned 2010 Model Year Jetta SportsWagen from Stevens Creek Volkswagen in San Jose, California. Stevens Creek Volkswagen is a Volkswagen Authorized Dealer. Bourn and Watson purchased the SportsWagen in reliance on Volkswagen's representations that the car was an environmentally-friendly "clean diesel" vehicle. They suffer injuries to their aesthetic, recreational, environmental, and/or economic interests as a result of Volkswagen's unlawful emissions of pollutants.

Proposed Plaintiff-Intervenor Mark Schumacher resides in Gainesville, Virginia. In 2012, he purchased a 2012 Model Year Volkswagen Passat SE TDI. Schumacher purchased the Passat from Lindsay Volkswagen in Sterling, Virginia. That company is a Volkswagen Authorized Dealer. Proposed Plaintiff-Intervenor Schumacher purchased the Passat in reliance on Volkswagen's representations that the car was an environmentally-friendly "clean diesel" vehicle. Schumacher suffers injuries to his aesthetic, recreational, environmental, and/or economic interests as a result of Volkswagen's unlawful emissions of pollutants.

Proposed Plaintiff-Intervenor Stephen Verner is an architect and resident of Oakland, California. In 2013, he purchased a TDI Golf four door from Royal Motor Sales in San Francisco, California. Royal Motor Sales is an Authorized Volkswagen Dealer. Verner purchased the Golf in reliance on Volkswagen's representations that the car was an environmentally friendly "clean diesel" vehicle. Verner suffers injuries to his aesthetic, recreational, environmental, and/or economic interests as a result of Volkswagen's unlawful emissions of pollutants.

VW FOIA, EPA 06/20/2017 2017-FFP_037346

Proposed Plaintiff-Intervenor CAS is a non-profit, Section 501(c)(3) public interest organization headquartered in Washington,DC. It was founded by consumer advocate Ralph Nader and Consumers Union in 1970 to provide consumers with a voice for auto safety and to provide information to consumers on how to purchase the best motor vehicle for their needs. CAS has ove r 15,000 members nationwide. CAS is dedicated to promoting automobile and highwa y safety, ensuring that defective and unsafe automobiles and automobile equ ipment are removed from the road, helping make roads safer for motor vehicles through safer designs and traffic, and working for improved fuel efficiency and lower emissions from motor vehicles.

As part of its commitment to improved fuel efficien cy, in 2008, CAS integrated into its programs the Safe Climate Campa ign which aims to fight global warming by promoting laws and regulations that requ ire strict emission standards. The Safe Climate Campaign also pushes automakers to make clean, energy efficient vehicles, and urges consumers to make energy-efficient choices in transportation.

Within the meaning of section 302(e) of the CAA, 42 U.S.C. § 7602(e), CAS is a "person" that may commence a civil action under section 304(a)(1) of the Clean Air Act, 42 U.S.C. § 7604(a)(1). CAS sues on behal f of itself and its individual members who were harmed by Volkswagen's conduct. T he organization and its members are adversely affected by the Volkswagen's vehicles' excess emissions—in violation of the CAA—that have deleterious impac ts on the areas where they live, work, and recreate.

CAS has individual standing as an organization beca use it has been harmed by Volkswagen's wrongful conduct as alleged herein. CAS had devoted

VW FOIA, EPA 06/20/2017 2017-FFP_037347

considerable time and resources encouraging automak ers to sell energy-efficient vehicles and encouraging members to purchase clean, energy-efficient vehicles. As a result of Defendants' unlawful conduct, CAS has h ad to redirect staff time and financial resources away from its planned activitie s. CAS also has associational standing on behalf of its members who have claims a gainst Volkswagen for its violations of the CAA.

Based on the effects that Volkswagen's CAA violat ions have had on Proposed Plaintiff-Intervenors, Proposed Plaintiff- Intervenors have Article III standing to file suit against Volkswagen. Likewise, the adverse effects that Volkswagen's violations have on Proposed Plaintiff- Intervenors justify allowing them to intervene in this action through Fed. R. Ci v. P. 24(a)(1) and CAA § 304(b)(1)(B), 42 U.S.C. § 7604(b)(1)(B).

IV. CONCLUSION

For the reasons set forth herein, Proposed Plaintif f-Intervenors respectfully request that the Court grant this motion and allow Proposed Plaintiff-Intervenors to file the attached Proposed Complaint in Interventio n and fully participate in jointly prosecuting their CAA claims against Volkswagen.

DATED: January 4, 2016

Respectfully submitted,

By: /s/Jaye Quadrozzi

Jaye Quadrozzi (P71646)
Sara MacWilliams (P67805)

VW FOIA, EPA 06/20/2017 2017-FFP_037348

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Counsel for Proposed Plaintiff-Intervenors

VW FOIA, EPA 06/20/2017 2017-FFP_037350

CERTIFICATE OF SERVICE

I hereby certify that on January 4, 2016, I electro nically filed the foregoing Motion to Intervene and the attached Exhibits and P roposed Complaint in Intervention with the Clerk of the Court using the ECF system. Additionally, I hereby certify that I have sent by United States Po stal Service and electronic mail the foregoing Notice to the following attorneys for Defendants:

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VW FOIA, EPA 06/20/2017 2017-FFP_037351

INDEX OF EXHIBITS

Exhibit 1: Proposed Complaint in Intervention

Exhibit 2: Proposed Complaint Ex. 1

Exhibit 3: Proposed Complaint Ex. 2

INDEX OF EXHIBITS

Exhibit 1: Proposed Complaint in Intervention

Exhibit 2: Proposed Complaint Ex. 1

Exhibit 3: Proposed Complaint Ex. 2

Exhibit 1

Proposed Complaint in Intervention

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiffs, and MARIA BOURN, DAVID WATSON, STEPHEN VERNER, MARK SCHUMACHER, and THE CENTER FOR AUTO SAFETY, Proposed Plaintiff-Intervenors, v. VOLKSWAGEN AG, AUDI AG, VOLKSWAGEN GROUP OF AMERICA, INC., VOLKSWAGEN GROUP OF AMERICA CHATTANOOGA OPERATIONS, LLC, DR. ING. H.C. F. PORSCHE AG, and PORSCHE CARS NORTH AMERICA, INC., Defendants.	Case No. 2:16-cv-10006 Judge Laurie J. Michelson Magistrate Judge Michael J. Hluchaniuk JURY TRIAL DEMANDED

[PROPOSED] COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF AND FOR CIVIL PENALTIES BY PLAINTIFF-INTERVENORS MARIA BOURN, DAVID WATSON, STEPHEN VERNER, MARK SCHUMACHER, AND THE CENTER FOR AUTO SAFETY

I. INTRODUCTION

1. Plaintiff-Intervenors Maria Bourn, David Watson, Stephen Verner, Mark Schumacher, and the Center for Auto Safety ("CAS") hereby adopt and incorporate by reference the claims alleged by Plaintiff the United States of America in this action. Plaintiff-Intervenors make the following additional allegations and raise the following claims:

2. Plaintiff-Intervenors bring this action to address significant and ongoing violations by Defendants, Volkswagen AG ("VWAG"), Volkswagen Group of America, Inc. ("VWoA"), Volkswagen Group of America Chattanooga Operations, LLC ("VWoA Chattanooga"), Audi AG, and Dr. Ing. h.c. F. Porsche AG and Porsche Cars North America, Inc. (collectively, "Porsche"),[1] of the Clean Air Act ("CAA"), 42 U.S.C. §§ 7401-7671q, and its implementing regulations, and the motor vehicle emissions laws, regulations, and orders of California, Connecticut, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington.

3. On September 18, 2015, the United States Environmental Protection Agency ("EPA") and the California Air Resources Board ("CARB") both notified

[1] Unless otherwise indicated herein, all of these defendants will be referred to collectively as "Volkswagen."

Volkswagen that it had violated federal and state laws and regulations by using a "defeat device"—software specifically intended to circumvent emissions test procedures established by the EPA and by CARB.

4. Since at least 2009, Volkswagen has introduced hundreds of thousands of vehicles that are equipped with defeat devices into the United States, in violation of the CAA.

5. As a result of the defeat devices, Volkswagen's vehicles did not properly comply with the federal Clean Air Act's ("CAA") requirement that all vehicles introduced into the United States obtain EPA-issued Certificates of Conformity ("COCs").

6. Furthermore, through use of the defeat devices, Defendants' vehicles exceeded emission limits on nitrogen oxide by up to 40 times the limit set by federal standards, and exceeded state implementation plans by an even greater amount.

7. Because of these serious violations, this citizen suit seeks declaratory and injunctive relief and the imposition of civil penalties under the CAA.

II. JURISDICTION AND VENUE

8. This Court has subject matter jurisdiction over the CAA claims set forth in this complaint pursuant to 42 U.S.C. § 7604(a) and 28 U.S.C. § 1331. The relief requested is authorized pursuant to 28 U.S.C §§ 2201 and 2202 and 42 U.S.C. §§ 7522 and 7604.

9. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391(b) and (c), in that at least one of the Defendants resides in this judicial district, is licensed to do business or is doing business in this judicial district.

10. To the extent required by 42 U.S.C. § 7604(b)(1)(A), on October 9,

2015, Plaintiff-Intervenors notified in writing the Administrator of the EPA, the governors and environmental agencies of 17 states, and Volkswagen of the alleged violations set forth in this complaint and Plaintiff-Intervenors' intent to sue Volkswagen as a result of its violations of the CAA. A true and accurate copy of Plaintiff-Intervenors' 60-day notice letter is attached as Exhibit 1 and incorporated by reference herein.

11. Plaintiff-Intervenors sent an additional notice letter on November 5, 2015, which is attached as Exhibit 2.

12. Sixty days have passed since notice was served by United States Mail. Additionally, because Plaintiff has commenced this action under the CAA to redress some of the violations alleged in this complaint, Plaintiff-Intervenors may intervene in this suit as of right pursuant to 42 U.S.C. § 7604(b)(1)(B).

13. The United States has informed Proposed Plaintiff-Intervenors that it does not oppose their intervention.

III. THE PARTIES.

A. Plaintiff-Intervenors

14. Plaintiff-Intervenors Maria Bourn ("Bourn") and David Watson ("Watson") are residents of South San Francisco, California. Bourn is a lawyer in San Francisco. Watson is a teacher. In 2015, Bourn and Watson, who are married, purchased a certified, pre-owned 2010 Model Year Jetta SportsWagen from Stevens Creek Volkswagen in San Jose, California. Stevens Creek Volkswagen is a Volkswagen Authorized Dealer. Plaintiff-Intervenors purchased the SportsWagen in reliance on Volkswagen's representations that the car was an environmentally-friendly "clean diesel" vehicle. Plaintiff-Intervenors suffer injuries to their

aesthetic, recreational, environmental, and/or economic interests as a result of Volkswagen's unlawful emissions of pollutants.

15. Plaintiff-Intervenor Mark Schumacher ("Schumacher") resides in Gainesville, Virginia. In 2012, he purchased a 2012 Model Year Volkswagen Passat SE TDI. Schumacher purchased the Passat from Lindsay Volkswagen in Sterling, Virginia. That company is a Volkswagen Authorized Dealer. Plaintiff-Intervenor Schumacher purchased the Passat in reliance on Volkswagen's representations that the car was an environmentally-friendly "clean diesel" vehicle. Schumacher suffers injuries to his aesthetic, recreational, environmental, and/or economic interests as a result of Volkswagen's unlawful emissions of pollutants.

16. Plaintiff-Intervenor Stephen Verner ("Verner") is an architect and resident of Oakland, California. In 2013, he purchased a TDI Golf four door from Royal Motor Sales in San Francisco, California. Royal Motor Sales is an Authorized Volkswagen Dealer. Verner purchased the Golf in reliance on Volkswagen's representations that the car was an environmentally friendly "clean diesel" vehicle. Verner suffers injuries to his aesthetic, recreational, environmental, and/or economic interests as a result of Volkswagen's unlawful emissions of pollutants.

17. CAS is a non-profit, Section 501(c)(3) public interest organization headquartered in Washington, DC. It was founded by consumer advocate Ralph Nader and Consumers Union in 1970 to provide consumers with a voice for auto safety and to provide information to consumers on how to purchase the best motor vehicle for their needs. CAS has over 15,000 members nationwide. CAS is dedicated to promoting automobile and highway safety, ensuring that defective and unsafe automobiles and automobile equipment are removed from the road, helping make

roads safer for motor vehicles through safer designs and traffic, and working for improved fuel efficiency and lower emissions from motor vehicles.

18. As part of its commitment to improved fuel efficiency, in 2008, CAS integrated into its programs the Safe Climate Campaign which aims to fight global warming by promoting laws and regulations that require strict emission standards. The Safe Climate Campaign also pushes automakers to make clean, energy efficient vehicles, and urges consumers to make energy-efficient choices in transportation.

19. Within the meaning of section 302(e) of the CAA, 42U.S.C. § 7602(e), CAS is a "person" that may commence a civil action under section 304(a)(1) of the Clean Air Act, 42 U.S.C. § 7604(a)(1). CAS sues orbehalf of itself and its individual members who were harmed by Volkswagen's conduct. The organization and its members are adversely affected by the Volkswagen'svehicles' excess emissions—in violation of the CAA—that have deleterious impacts on the areas where they live, work, and recreate.

20. CAS has individual standing as an organization because it has been harmed by Volkswagen's wrongful conduct as alleged herein. CAS had devoted considerable time and resources encouraging automakers to sell energy-efficient vehicles and encouraging members to purchase clean, energy-efficient vehicles. As a result of Defendants' unlawful conduct, CAS has had to redirect staff time and financial resources away from its planned activities.

21. CAS also has associational standing on behalf of its members who have claims against Volkswagen for the violations alleged in this complaint.

B. Defendants

22. Defendant VWAG is a car corporation organized and existing under

German law, with its principal place of business in Wolfsburg, Germany. VWAG is the parent company of Defendants VWoA, Audi, and Porsche.

23. Defendant Audi AG is a car corporation organized and existing under German law, with its principal place of business in Ingolstadt, Germany. It is owned by VWAG. Audi was created when VWAG merged two of its companies, Auto Union and NSU Motorenwerke AG. Audi is a 99.55%-owned subsidiary of VWAG. Audi is now Volkswagen's luxury vehicle brand, and uses the slogan "Truth in Engineering".

24. Defendant Porsche AG is a car corporation organized and existing under German law, with its principal place of business in Stuttgart, Germany. It is a 100%-owned subsidiary of VWAG.

25. Defendant VWoA is a corporation organized and existing under New Jersey law. Its headquarters are in Herndon, Virginia. VWoA is a wholly-owned subsidiary of VWAG. It is one of the world's largest producers of passenger cars. Through Volkswagen of America, Inc., it sells the Beetle, Beetle Convertible, CC, Eos, e-Golf, Golf, Golf GTI, Golf SportWagen, Jetta, Passat, Tiguan, and Touareg vehicles through Volkswagen Authorized Dealers located in the United States. VWoA's operations in the United States include research and development; parts and vehicle processing; parts distribution; sales, marketing, and service offices; financial service centers; and manufacturing.

26. VWoA Chattanooga is a wholly-owned subsidiary of VWoA. VWoA Chattanooga is incorporated under the laws of the State of Tennessee, and is located in Chattanooga, Tennessee.

27. Defendant Porsche Cars North America is a subsidiary of Porsche AG

that sells Porsche vehicles in the United States. Its United States headquarters are in Atlanta, Georgia.

28. Defendants are "persons" within the meaning of section 302(e) of the CAA, 42 U.S.C. § 7602(e), that may be sued under section 304(a)(1) of the Clean Air Act, 42 U.S.C. § 7604(a)(1).

29. Defendants are "manufacturers" within the meaning of section 216(1) of the CAA, 42 U.S.C. § 7550(1).

IV. LEGAL AND FACTUAL ALLEGATIONS.

A. Regulation of Defeat Devices.

30. Congress enacted the CAA and established the EPA in 1970. The objective of the CAA is "to protect and enhance the quality of the nation's air resources so as to promote the public health and welfare and the productive capacity of its population." CAA § 101(b), 42 U.S.C. § 7401(b).

31. The CAA requires vehicle manufacturers to certify to EPA that their cars and trucks will meet applicable federal emission standards. EPA administers a certification program to ensure that every vehicle complies with its emission standards. EPA-issued COCs are required for every vehicle sold in the United States, and EPA must approve every vehicle entering United States commerce. Manufacturers are prohibited from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing, any new motor vehicle unless that vehicle is covered by an EPA-issued COC. CAA § 203(a)(1), 42 U.S.C. § 7522(a)(1); 40 C.F.R. § 86.1854-12(a)(l).

32. Vehicles can be covered by COCs "only if they are in all material

respects as described in the manufacturer's application for certification." 40 C.F.R. § 86.1848-10(c)(6). Similarly, a COC issued by EPA states expressly, "[t]his certificate covers only those new motor vehicles or vehicle engines which conform, in all material respects, to the design specifications" described in the application for that COC.

33. An application for a COC must include, among other things, a list of all auxiliary emission control devices ("AECDs") installed on the vehicle. 40 C.F.R. § 86.1844-01(d)(11). An AECD is "any element of design which senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.1803-01.

34. The COC application must also include "a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device." 40 C.F.R. § 86.1844-01(d)(11).

35. An AECD is considered to be a "defeat device" if it "reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles." 40 C.F.R. § 86.1803-01.

36. The use of defeat devices is illegal under the CAA, which prohibits the manufacture, selling, or installation of any device that bypasses, defeats, or renders

inoperative a required element of a vehicle's emiss ions control system. CAA § 203(a)(3)(b), 42 U.S.C. § 7522(a)(3)(b). The CAA r egulations also state that new light-duty vehicles are prohibited from being equip ped with defeat devices. 40 C.F.R. §§ 86.1809-01, 86.1809-10, 86.1809-12.

B. Emission Standards.

37. In addition to regulating defeat devices and requir ing COCs, the CAA imposes emission limitations for various air pollut ants. Among these standards is the limitation on emissions of nitrogen oxide (" NOx "), set by section 202 of the CAA, 42 U.S.C. § 7521, and 40 CFR 86.1811-04. Thes e provisions impose a limitation of 0.07 grams of NOx per mile for the Affected Vehicles.

38. Under section 222(a)(1) of the CAA, 42 U.S.C. § 754 1(a)(1), a manufacturer must warrant that its vehicles meet th e emission standards set by section 202 of the CAA, 42 U.S.C. § 7521. A failur e to comply with that warranty constitutes a violation of section 203(a)(4)(D) of the CAA, 42 U.S.C. § 7522(a)(4)(D).

39. Additionally, CARB has established emission standards for NOx. The relevant California standards are found in Cal. Cod e Regs. tit. 13, §§ 1961, 1961.2. The CARB standards limit NOx emissions to 0.05 gram s per mile. EPA approved the CARB standards through section 209 of the CAA, 42 U.S.C. § 7543.

40. The CARB standards have also been adopted in the following states:

- Connecticut: Conn. Gen. Stat. § 22a-174g; Conn. Agencies Regs. 22a-174-36, 22a-174-36b, 22a-174-36c;
- Maine: Me. Rev. Stat. tit. 38, §§ 585, 585-A, 585-D; Code Me. R. tit.

06-096 Ch. 127, §§ 3-4;

- Maryland: Md. Code, Envir. § 2-1103; Md. Code Regs. 26.11.34.05;
- Massachusetts: Mass. Gen. Laws ch. 111, § 142K; 310 Mass. Code Regs. 7.40;
- New Jersey: N.J. Stat. § 26:2C-8.17; N.J. Admin. Code § 7:27-29.4;
- New York: N.Y. Envt'l Conserv. Law § 19-0301; N.Y. Comp. Codes R. & Regs. tit. 6, § 218-2.1;
- Oregon: Or. Rev. Stat. § 184.889; Or. Admin. R. 340-257-0040, 340-257-0050;
- Pennsylvania: 25 Pa. Code §§ 121.1, 126.412;
- Rhode Island: 23 R.I. Gen. Laws § 23-23-5; R.I. Code R. 25-4-37:37.3;
- Vermont: Vt. Stat. tit. 10, § 567; 16-3 Vt. Code R. § 100:5-1102, 100:5-1103; 16-3 Vt. Code R. § 100 App'x F; and
- Washington: Wash. Rev. Code §§ 70.94.040, 70.120A.010; Wash. Admin. Code 173-423-050(1).

41. EPA approved adoption of the CARB standards in the above states through section 177 of the CAA, 42 U.S.C. § 7507.

C. Volkswagen's Violations.

42. Volkswagen violated these statutes by installing de feat devices on the emission control systems for at least the following Volkswagen, and Audi vehicles with diesel engines sold in the United States ("the Affected Vehicles"):

- VW Jetta TDI (Model Years 2009-15);
- VW Jetta SportWagen TDI (Model Years 2009-14);
- VW Golf TDI (Model Years 2010-15);
- VW Golf SportWagen TDI (Model Year 2015);
- VW Beetle TDI and VW Beetle Convertible TDI (Model Years 2012-15);
- VW Passat TDI (Model Years 2012-15);
- Audi A3 TDI (Model Years 2010-15);
- VW Toureg (Model Years 2014-15);
- Porsche Cayenne A3 TDI (Model Years 2014-16);
- Audi A6 Quattro (Model Years 2015-16);
- Audi A7 Quattro (Model Years 2015-16);
- Audi A8 and A8 L (Model Years 2015-16);
- Audi Q5 (Model Years 2015-16).

43. Volkswagen has already widely acknowledged the use of defeat devices in the Affected Vehicles. Michael Horn, the President and CEO of VWoA, admitted that the defeat devices was installed in approximately 525,000 vehicles in the United States. Volkswagen executives at the highest level of the company were aware of

these emissions violations and these individuals authorized concealment through the use of a sophisticated software code that understood when an engine was being subjected to an emissions test. The software then altered engine settings to allow the vehicle to pass the emissions test. Thereafter, the engine would revert to normal settings for real-world driving conditions.

44. Volkswagen's defeat device is described as a "sophisticated software algorithm" that detects when the car is undergoing emissions testing. The algorithm used information about how the car was being steered, how long the engine ran and atmospheric pressure to "precisely track" the conditions that corresponded to a federal emissions test, according to the EPA. During emissions testing, the software "turns on" the car's full emissions control system in order to pass the test. Under normal driving situations, however, these emissions control systems are ***turned off***, allowing the cars to spew as much as 40 times the allowable amount of NOx into the air.

45. By using defeat devices in the Affected Vehicles, Volkswagen violated section 203(a)(3)(b) of the CAA, 42 U.S.C. § 7522(a)(3)(b), and 40 C.F.R. §§ 86-1809-01, 86-1809-10, 86-1809-12.

46. Volkswagen did not disclose the existence of defeat devices in its applications for COCs for the Affected Vehicles. Therefore, the vehicles did not comply with their COCs, in violation of section 203 (a)(1) of the CAA, 42 U.S.C. § 7522(a)(1).

47. Because Volkswagen was using defeat devices, the emissions of the Affected Vehicles exceeded federal emissions standards for NOx by 9 to 40 times. The NOx emissions exceeded the CARB standards by even greater amounts. Over

the course of the seven years the Affected Vehicleswere in use, they spewed enough NOx to significantly degrade the environment in urban areas.

48. Because the Affected Vehicles violated the NOx emis sions standards set by section 202 of the CAA, 42 U.S.C. § 7521, th e Affected Vehicles were not compliant with the warranties required by section 2 22(a)(1) of the CAA, 42 U.S.C. § 7541(a)(1). A failure to comply with that warranty constitutes a violation of section 203(a)(4)(D) of the CAA, 42 U.S.C. § 7522(a)(4)(D).

49. Until Volkswagen is made to remedy the deficiencies in the Affected Vehicles, Volkswagen will continue to be in violati on of sections 203(a)(1), 203(a)(3)(b), and 203(a)(4)(D) of the CAA, 42 U.S.C. §§ 7522(a)(1), 7522(a)(3)(b), 7522(a)(4)(D), and the vehicles will continue to spew NOx far in excess of state and federal standards.

V. CAUSES OF ACTION

FIRST CLAIM

Use of Defeat Devices in Violation of CAA § 203(a)(3)(b), 42 U.S.C. § 7522(a)(3)(b)

50. Plaintiff-Intervenors incorporate by reference each preceding and succeeding paragraph.

51. Volkswagen equipped hundreds of thousands of Affected Vehicles with defeat devices in violation of section 203(a)(3)(b) of the CAA, 42 U.S.C. § 7522(a)(3)(b), and 40 C.F.R. §§ 86-1809-01, 86-1809-10, 86-1809-12.

52. Persons who violate section 203(a)(3)(B) of the CAA , 42 U.S.C. § 7522(a)(3)(B), are subject to a civil penalty of up to $3,750 for each violation that

occurred on or after January 13, 2009. [2] CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4. The Court can also impose additional equitable remedies under section 204(a) of the CAA, 42 U.S.C. § 7523(a), to further address these violations.

53. Plaintiff-Intervenors can file suit for these violations under section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), because violations of 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B), constitutes violations of "an emission standard or limitation under" the CAA, which is defined to include any "schedule or timetable of compliance, emission limitation, standard of performance or emission standard." CAA § 304(f)(1), 42 U.S.C. § 7604(f)(1).

54. Volkswagen has already admitted that it equipped 52 5,000 vehicles with defeat devices in violation of section 203(a)(3)(b) of the CAA, 42 U.S.C. § 7522(a)(3)(b).

55. Because the majority of the Affected Vehicles remain in use, Volkswagen's violations of section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B), and, by extension, violations of section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), continue through the date of the filing of this Complaint.

SECOND CLAIM
Noncompliance with Certificates of Conformity in Violation of CAA § 203(a)(1), 42 U.S.C. § 7522(a)(1)

56. Plaintiff-Intervenors incorporate by reference each preceding and succeeding paragraph.

57. Because Volkswagen equipped the Affected Vehicles with defeat devices, the Affected Vehicles were not properly covered by EPA-issued COCs. By

[2] $2,750 for violations occurring prior to January 13, 2009.

distributing vehicles that were not covered by COCs , Defendants violated section 203(a)(1) of the CAA, 42 U.S.C. § 7522(a)(1), and 40 C.F.R. § 86.1854-12(a)(l).

58. Persons who violate section 203(a)(1) of the CAA, 4 2 U.S.C. § 7522(a)(1), are subject to a civil penalty of up to $37,500 for each violation that occurred on or after January 13, 2009. [3] CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4. The Court can also impose additiona l equitable remedies under section 204(a) of the CAA, 42 U.S.C. § 7523(a), to further address these violations.

59. Plaintiff-Intervenors can file suit for these viola tions under section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), because violations of section 203(a)(1) of the CAA, 42 U.S.C. § 7522(a)(1), constitute violations of "an emission standard or limitation under" the CAA, which is def ined to include any "schedule or timetable of compliance, emission limitation, standard of performance or emission standard." CAA § 304(f)(1), 42 U.S.C. § 7604(f)(1).

60. Volkswagen has already admitted that it equipped 52 5,000 vehicles with defeat devices, meaning that the vehicles coul d not be covered by the EPA-issued COCs, in violation of section 203(a)(1) of the CAA, 42 U.S.C. § 7522(a)(1).

61. Because the majority of the Affected Vehicles remai n on the road, Volkswagen's violations of section 203(a)(1) of the CAA, 42 U.S.C. § 7522(a)(1), and, by extension, violations of section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), continue through the date of the filing of this Complaint.

THIRD CLAIM
Violations of Federal NOx Emission Standards in CAA § 202 of the CAA, 42 U.S.C. § 7521

[3] $32,500 for violations occurring prior to January 13, 2009.

62. Plaintiff-Intervenors incorporate by reference each preceding and succeeding paragraph.

63. The CAA imposes an emission limitation of 0.07 grams of NOx per mile for the Affected Vehicles, set by section 202 of the CAA, 42 U.S.C. § 7521, and 40 CFR 86.1811-04.

64. EPA has stated that the Affected Vehicles exceed this standard by 9 to 40 times, depending on the vehicle and the driving conditions (*i.e.*, city vs. highway).

65. Plaintiff-Intervenors can file suit for these violations under section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), because violations of the emissions standard set by section 202 of the CAA, 42 U.S.C. § 7521, constitutes violations of "an emission standard or limitation under" the CAA, which is defined to include "any a schedule or timetable of compliance, emission limitation, standard of performance or emission standard." CAA § 304(f)(1), 42 U.S.C. § 7604(f)(1).

66. Volkswagen has already admitted that the Affected Vehicles were equipped with defeat devices, causing them to spew excess emissions in violation of section 202 of the CAA, 42 U.S.C. § 7521.

67. Because the majority of the Affected Vehicles remain in use, Volkswagen's violations of section 202 of the CAA, 42 U.S.C. § 7521, and, by extension, violations of section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), continue through the date of the filing of this Complaint.

FOURTH CLAIM
Noncompliance with Emissions Warranties in Violation CAA § 203(a)(4)(D), 42 U.S.C. § 7522(a)(4)(D)

68. Plaintiff-Intervenors incorporate by reference each preceding and succeeding paragraph.

69. Because Volkswagen's Affected Vehicles violated the NOx emissions standards set by section 202 of the CAA, 42 U.S.C. § 7521, the Affected Vehicles were not compliant with the warranties required bysection 222(a)(1) of the CAA, 42 U.S.C. § 7541(a)(1). A failure to comply with that warranty constitutes a violation of section 203(a)(4)(D) of the CAA, 42 U.S.C. § 7522(a)(4)(D).

70. Persons who violate section 203(a)(4)(D) of the CAA , 42 U.S.C. § 7522(a)(1), are subject to a civil penalty of up to $37,500 for each violation that occurred on or after January 13, 2009. [4] CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4. The Court can also impose additiona l equitable remedies under section 204(a) of the CAA, 42 U.S.C. § 7523(a), to further address these violations.

71. Plaintiff-Intervenors can file suit for these viola tion under section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), because violations of 203(a)(4)(D) of the CAA, 42 U.S.C. § 7522(a)(4)(D), constitutes violations of "an emission standard or limitation under" the CAA, whi ch is defined to include any "schedule or timetable of compliance, emission limitation, standard of performance or emission standard." CAA § 304(f)(1), 42 U.S.C. § 7604(f)(1).

72. Volkswagen has already admitted that the Affected V ehicles were equipped with defeat devices, causing them to spew excess emissions in violation of section 202 of the CAA, 42 U.S.C. § 7521, meaning t hat the Affected Vehicles did not comply with the warranties issued under section 222(a)(1) of the CAA, 42

[4] $32,500 for violations occurring prior to January 13, 2009.

U.S.C. § 7541(a)(1), thus constituting a violation of section 203(a)(4)(D) of the CAA, 42 U.S.C. § 7522(a)(4)(D).

73. Because the majority of the Affected Vehicles remain in use, Volkswagen's violations of section 203(a)(4)(D) of the CAA, 42 U.S.C. § 7522(a)(4)(D), and, by extension, violations of section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), continue through the date of the filing of this Complaint.

FIFTH CLAIM
Violations of CARB NOx Emission Standards in Cal. Code Regs. tit. 13, §§ 1961, 1961.2 And Other Adopting States

74. Plaintiff-Intervenors incorporate by reference each preceding and succeeding paragraph.

75. The emissions of the Affected Vehicles exceed the NOx emission standards set by CARB in Cal. Code Regs. tit. 13, § § 1961, 1961.2, which limit NOx emissions to 0.05 grams per mile.

76. The CARB standards have also been adopted in the following states:

- Connecticut: Conn. Gen. Stat. § 22a-174g; Conn. Agencies Regs. 22a-174-36, 22a-174-36b, 22a-174-36c;
- Maine: Me. Rev. Stat. tit. 38, §§ 585, 585-A, 585-D; Code Me. R. tit. 06-096 Ch. 127, §§ 3-4;
- Maryland: Md. Code, Envir. § 2-1103; Md. Code Regs. 26.11.34.05;
- Massachusetts: Mass. Gen. Laws ch. 111, § 142K; 310 Mass. Code Regs. 7.40;

- New Jersey: N.J. Stat. § 26:2C-8.17; N.J. Admin. Code § 7:27-29.4;
- New York: N.Y. Envt'l Conserv. Law § 19-0301; N.Y. Comp. Codes R. & Regs. tit. 6, § 218-2.1;
- Oregon: Or. Rev. Stat. § 184.889; Or. Admin. R. 340-257-0040, 340-257-0050;
- Pennsylvania: 25 Pa. Code §§ 121.1, 126.412;
- Rhode Island: 23 R.I. Gen. Laws § 23-23-5; R.I. Code R. 25-4-37:37.3;
- Vermont: Vt. Stat. tit. 10, § 567; 16-3 Vt. Code R. § 100:5-1102, 100:5-1103; 16-3 Vt. Code R. § 100 App'x F; and
- Washington: Wash. Rev. Code §§ 70.94.040, 70.120A.010; Wash. Admin. Code 173-423-050(1).

77. Because the CARB standards are stricter than the federal standards, Volkswagen is violating the emission standards of these states by even greater amounts than their violations of the federal standards.

78. Plaintiff-Intervenors can file suit for these violations under section 304 of the CAA, 42 U.S.C. § 7604, because the CAA defines "an emission standard or limitation under" the CAA to include any "standard, limitation, or schedule established under . . . any applicable State implementation plan approved by the Administrator." CAA § 304(f)(4), 42 U.S.C. § 7604(f)(4). The CARB standards were approved for California by the Administrator through section 209 of the CAA, 42 U.S.C. § 7543, and other states were permitted to adopt the CARB standards under section 177 of the CAA, 42 U.S.C. § 7507. Therefore, 42 U.S.C. § 7604

permits Plaintiff-Intervenors to sue for violations of not only the federal NOx emissions standard, but also violations of the CARB standards throughout the states that have adopted those standards.

79. Volkswagen has already admitted that the Affected Vehicles were equipped with defeat devices, causing them to spew excess emissions in violation of the CARB standards in California, Connecticut, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington.

80. Because the majority of the Affected Vehicles remain in use, Volkswagen's violations of the CARB standards in these states, and, by extension, violations of section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), continue through the date of the filing of this Complaint.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff-Intervenors pray that the Court enter judgment on their behalf and on behalf of their members, and:

A. DECLARE that Volkswagen has violated and continues to violate the CAA's prohibition on the use of defeat devices;

B. DECLARE that Volkswagen has violated and continues to violate the CAA's requirement that all vehicles be covered by valid COCs;

C. DECLARE that Volkswagen has violated and continues to violate the federal standards for NOx emissions;

D. DECLARE that Volkswagen has violated and continues to violate the CARB standards for NOx emissions;

E. ISSUE A PERMANENT INJUNCTION requiring Volkswagen to take

promptly all measures necessary to bring the Affected Vehicles into compliance with the CAA and CARB emission standards;

F. ORDER Volkswagen to pay a civil penalty pursuant to sections 203(a)(1), 203(a)(3), and 304(a) of the CAA, 42 U.S .C. §§ 7222(a)(1), 7222(a)(3), and 7604(a).

G. ORDER Volkswagen to pay to Plaintiff-Intervenors th eir costs of litigation, including but not limited to reasonable attorney and expert witness fees, as authorized in section 304(d) of the CAA, 42 U.S.C. § 7604(d).

H. ORDER such other relief as the Court deems necessary and proper.

DATED: January 4, 2016 Respectfully submitted,

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IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiffs, and MARIA BOURN, DAVID WATSON, STEPHEN VERNER, MARK SCHUMACHER, and THE CENTER FOR AUTO SAFETY, Proposed Plaintiff-Intervenors, v. VOLKSWAGEN AG, AUDI AG, VOLKSWAGEN GROUP OF AMERICA, INC., VOLKSWAGEN GROUP OF AMERICA CHATTANOOGA OPERATIONS, LLC, DR. ING. H.C. F. PORSCHE AG, and PORSCHE CARS NORTH AMERICA, INC., Defendants.	Case No. 2:16-cv-10006 Judge Laurie J. Michelson Magistrate Judge Michael J. Hluchaniuk JURY TRIAL DEMANDED

JURY DEMAND

Plaintiff demands a jury on all issues so triable.

DATED: January 4, 2016 Respectfully submitted,

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VW FOIA, EPA 06/20/2017 2017-FFP_037381

Exhibit 2

First Exhibit to Proposed Complaint in Intervention

EXHIBIT 1

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October 9, 2015

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Region 2
Environmental Protection Agency
290 Broadway
New York, NY 10007-1866

Andrew Cuomo
Governor of New York
NYS State Capitol Building
Albany, NY 12224

VW FOIA, EPA 06/20/2017 2017-FFP_037385

HAUSFELD

Regional Administrator
Mid-Atlantic Region
Environmental Protection Agency
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Philadelphia, PA 19103-2029

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Governor of Pennsylvania
508 Main Capitol Building
Harrisburg, PA 17120

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California Air Resources Board
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El Monte, California 91731

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Douglas Ducey
Governor of Arizona
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Phoenix, AZ 85007

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Connecticut Department of Energy & Environmental Protection
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Hartford, CT 06106-5127

Dannel P. Malloy
Governor of Connecticut
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Hartford, CT 06106

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Paul R. LePage
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Augusta, ME 04333-0001

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Annapolis, MD 21401

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Boston, Massachusetts 02108

VW FOIA, EPA 06/20/2017 2017-FFP_037386

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Chris Christie
Governor of New Jersey
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Trenton, NJ 08625

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New Mexico Environment Department
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Santa Fe, New Mexico 87505

Susana Martinez
Governor of New Mexico
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Santa Fe, NM 87501

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Kate Brown
Governor of Oregon
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Salem, OR 97301-4047

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Pennsylvania Department of Environmental Protection
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Harrisburg, PA 17101

General Counsel
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, RI 02908-5767

Gina M. Raimondo
Governor of Rhode Island
82 Smith Street
Providence, RI 02903

General Counsel
Vermont Department of Environmental Conservation
1 National Life Drive, Main 2
Montpelier, VT 05620-3520

Peter Shumlin
Governor of Vermont
109 State Street, Pavilion
Montpelier, VT 05609

VW FOIA, EPA 06/20/2017 2017-FFP_037387

General Counsel
Washington Department of Ecology
300 Desmond Drive SE,
Lacey, WA 98503

RE: ***VW Emissions Violations; Notice of Intent to Sue.***

Dear Sir or Madame:

Pursuant to 42 U.S.C. § 7604(b), we write to notify you that Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen of America, Inc., and Audi of America, Inc. (collectively "VW") are alleged to have violated the Clean Air Act ("CAA"), 42 U.S.C. §§ 7401 - 7671q, and its implementing regulations, and the motor vehicle emissions laws, regulations and orders of California, Arizona, Connecticut, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington by installing "defeat devices" on its emissions control systems for at least the following Volkswagen and Audi vehicles sold in the United States:

- VW Jetta TDI (Model Years 2009-15);
- VW Jetta SportWagen TDI (Model Years 2009-14);
- VW Golf TDI (Model Years 2010-15);
- VW Golf SportWagen TDI (Model Year 2015);
- VW Beetle TDI and VW Beetle Convertible TDI (Model Years 2012-15);
- VW Passat TDI (Model Years 2012-15); and
- Audi A3 TDI (Model Years 2010-15).

The defeat devices masked real world NOx emissions that exceeded emissions levels authorized by the U.S. Environmental Protection Agency limits by 10 to 40 times.

VW has widely admitted to its violation of E.P.A. and California Air Resources Board

rules and regulations (which have been adopted in 13 states), and to its deception of state and federal regulators. On October 8, 2016, VW additionally publicly announced that some or all of its SCR engines may also be non-compliant with state and federal regulations. VW executives at the highest level of the company were aware of these emissions violations and these individuals authorized concealment through the use of a sophisticated software code that understood when an engine was being subjected to an emissions test. The software then altered engine settings to allow the vehicle to pass the emissions test. Thereafter, the engine would revert to normal settings for real-world driving conditions.

The CAA makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use."' CAA § 203(a)(3)(B), 42 U.S.C. § 7522(a)(3)(B); 40 C.F.R. § 86. 1854-12(a)(3)(ii). Additionally, manufacturers are prohibited from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing, any new motor vehicle unless that vehicle is covered by an EPA-issued Certificate of Conformity ("COC"). CAA § 203(a)(1), 42 U.S.C. § 7522(a)(1); 40 C.F.R. § 86. 1854-1 2(a)(l). It is also a violation to cause any of the foregoing acts. CAA § 203(a), 42 U.S.C. § 7522(a); 40 C.F.R. § 86-1854- 12(a).

"Vehicles are covered by a certificate of conformity only if they are in all material respects as described in the manufacturer's application for certification . . . ." 40 C.F.R. § 86.1848-1 O(c)(6). Similarly, a COC issued by EPA, including those issued to VW, state expressly, "[t]his certificate covers only those new motor vehicles or vehicle engines which conform, in all material respects, to the design specifications" described in the application for that COC. *See also* 40 C.F.R. §§ 86. 1844-01 (listing required content for COC applications), 86.1848-0 l (b) (authorizing the EPA to issue COCs on any terms that are necessary or appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

Motor vehicles equipped with defeat devices, such as those at issue here, cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86-1809-01, 86- 1809-10, 86-1809-1 2. Electronic control systems which may receive inputs from multiple sensors and control multiple actuators that affect the emission control system's performance are AECDs. EPA, *Advisaty Circular*

Number 24-2: Prohibition of Emission Control Defeat Devices - Optional Objective Criteria (Dec. 6, 1978). "Such elements of design could be control system logic (i.e., computer software), and/or calibrations, and/or hardware items." *Id.*

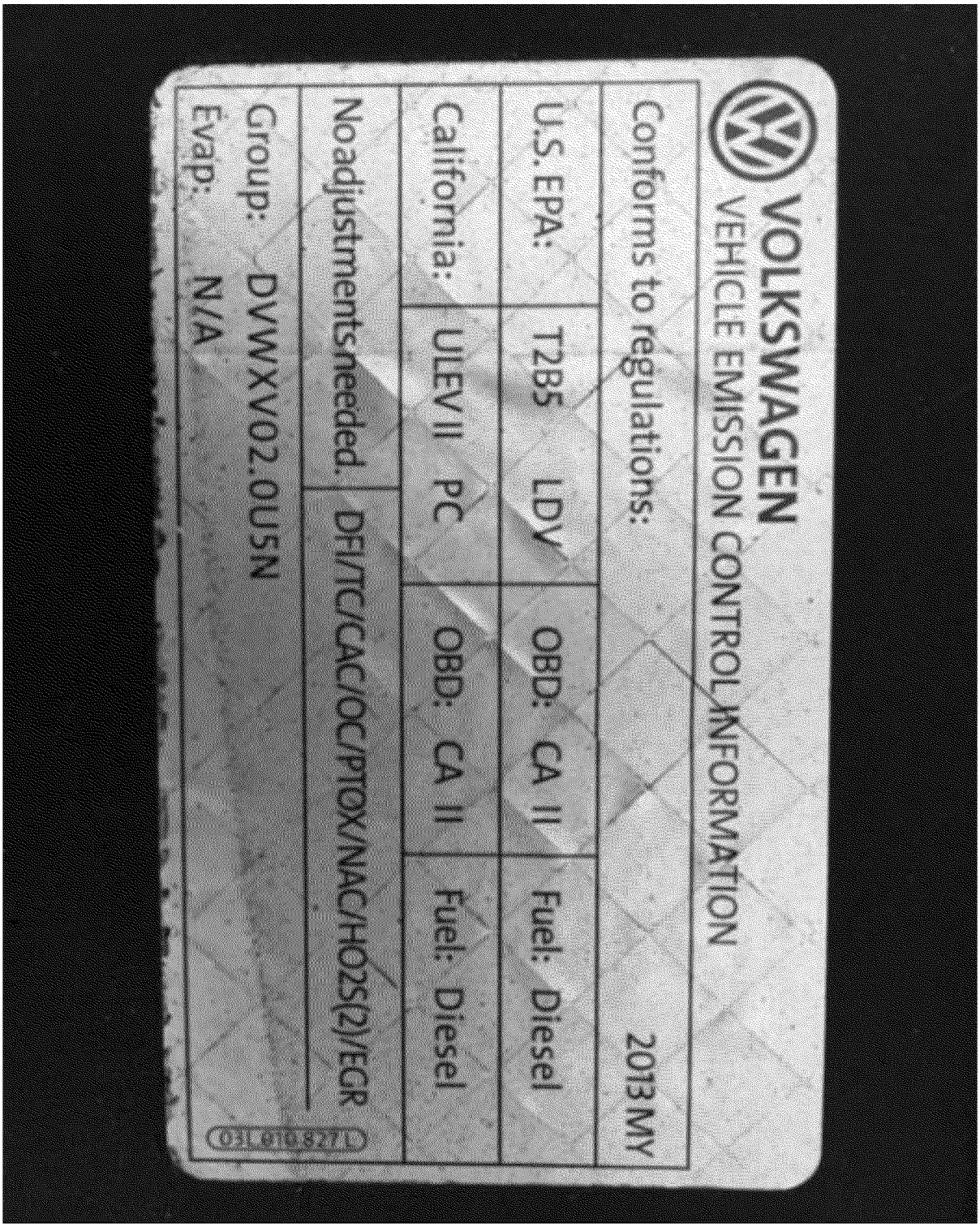
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Persons who violate section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B), are subject to a civil penalty of up to $3,750 for each violation that occurred on or after January 13, 2009;[1] CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4. In addition, any manufacturer who, on or after January 13, 2009, sold, offered for sale, introduced into commerce, delivered for introduction into commerce, imported, or caused any of the foregoing acts with respect to any new motor vehicle that was not covered by an EPA-issued COC is subject, among other things, to a civil penalty of up to $37,500 for each violation.[2] CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4. Additional equitable remedies to further address these alleged violations are also authorized. CAA § 204(a). 42 U.S.C. § 7523(a).

VW's certifications, which are affixed to hundreds of thousands of non-compliant vehicles are false. An exemplar of these certifications is as follows:

[1] $2.750 for violations occurring prior to January 13. 2009.
[2] $32,500 for violations occurring prior to January 13, 2009.

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VOLKSWAGEN
VEHICLE EMISSION CONTROL INFORMATION
Conforms to regulations:
2013 MY
U.S. EPA:
T2B5
LDV
OBD: CA II
Fuel: Diesel
California:
ULEV II
PC
OBD: CA II
Fuel: Diesel
No adjustments needed.
DFI/TC/CAC/OC/PTOX/NAC/HO2S(2)/EGR
Group: DVWXV02.0U5N
Evap: N/A

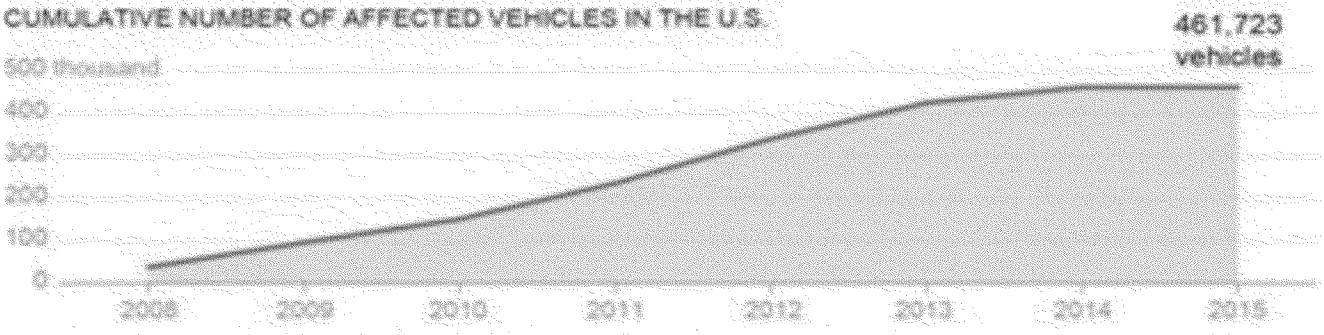
VW's conduct has contributed to significant degradation of air quality in urban environments and has been estimated to have contributed to respiratory and other health problems and death of dozens of people in the United States over the last seven years. On October 3, Associated Press ("AP") laid out the facts in the chart that follows:

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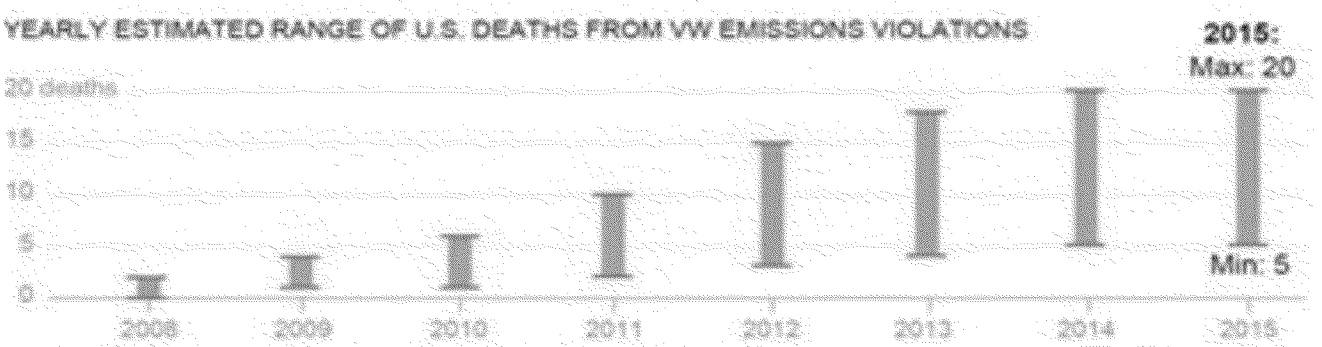
Calculating human toll of VW emissions problems

U.S. pollution resulting from Volkswagen's dodging of emissions tests is enough to have caused dozens of deaths since 2008. An AP analysis calculated upper and lower limits of pollution using the number of affected vehicles each year and average mileage. Scientists used that data in epidemiological computer models to estimate a range of deaths.

CUMULATIVE NUMBER OF AFFECTED VEHICLES IN THE U.S.

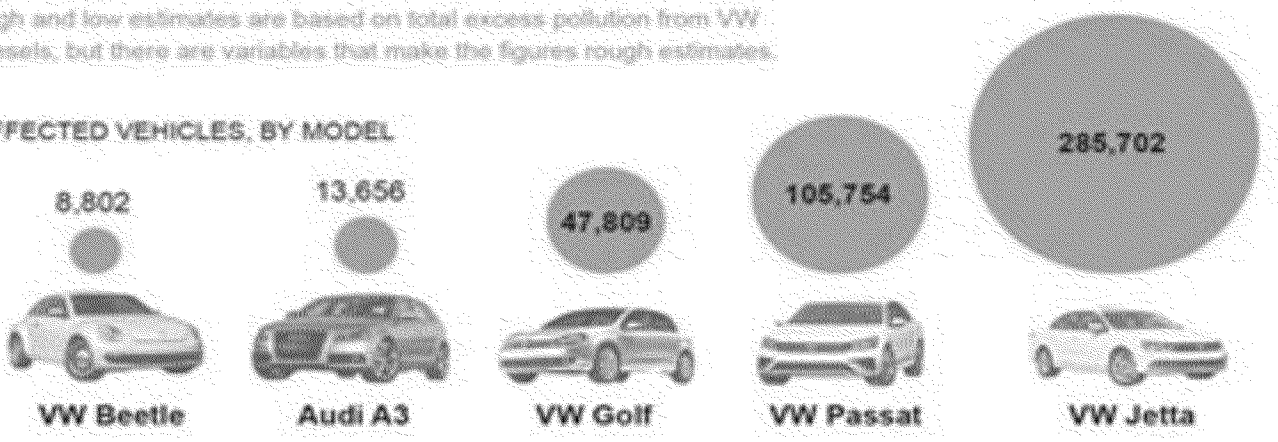


YEARLY ESTIMATED RANGE OF U.S. DEATHS FROM VW EMISSIONS VIOLATIONS



High and low estimates are based on total excess pollution from VW diesels, but there are variables that make the figures rough estimates.

AFFECTED VEHICLES, BY MODEL



NOTE: The total of 47,809 for VW Golf includes 3,530 VW Golf Sportswagen vehicles. The total figure of 461,723 is derived from Kelley Blue Book vehicle registration data. The Environmental Protection Agency estimates the total number of affected vehicles in the U.S. to be about 482,000.

SOURCES: AP analysis of data from the U.S. Environmental Protection Agency and Kelley Blue Book; AP Professor Peter Adams, Carnegie Mellon; Volkswagen; Audi

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[redacted]

As the AP article notes, the Class Vehicles released enough NOx over the course of seven years to significantly degrade the environment in urban areas.

The full name and contact of the parties giving notice are as follows: Maria Bourn, David Watson, Stephen Verner, Mark Schumacher and the Center for Auto Safety, each of whom may be contacted through their counsel, Hausfeld LLP, 600 Montgomery Street, 32nd Floor, San Francisco, CA 94111 (Tel.: 415-633-1908).

The parties give you notice of their intent to sue the VW entities identified above pursuant to 42 U.S.C. § 7604(a)(1) sixty days following the date of this notice in the United States District Court for the Eastern District of Virginia. Notice is deemed given on the postmark date. See 40 C.F.R. § 54.2(d)

If you believe that any portion of this notice is provided in error, or if you wish to discuss any portion of this notice, please do not hesitate to contact me.

Very truly yours,

Christopher L. Lebsock
Partner

VW FOIA, EPA 06/20/2017 2017-FFP_037394

Exhibit 3

Second Exhibit to Proposed Complaint in Intervention

EXHIBIT 2

HAUSFELD

CHRISTOPHER L. LEBSOCK
Partner

600 Montgomery Street
Suite 3200
San Francisco, CA 94111

415-633-1949 Direct
415-633-1908 Main
415-358-4980 Fax

clebsock@hausfeld.com

November 5, 2015

VIA CERTIFIED U.S. MAIL

Ex. 7

Audi AG
Inglostadt
Bayern 85057
Germany

Porsche AG
Dr. Ing. h.c. F. Porsche AG
Porscheplatz 1
D - 70435 Stuttgart

Porsche Cars North America, Inc.
One Porsche Drive
Atlanta, GA 30354

Ex. 7

Audi of America, Inc.
c/o Corporation Service Company
Bank of America Center
111 East Main Street
Richmond, VA 23219

Ex. 7

Ex. 7

Ex. 7

Ex. 7

General Counsel
Audi of America, Inc.
2200 Ferdinand Porsche Drive
Herndon, VA 20171

VW FOIA, EPA 06/20/2017 2017-FFP_037397

HAUSFELD

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Andrew Cuomo
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Protection
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Douglas Ducey
Governor of Arizona
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Santa Fe, NM 87501

VW FOIA, EPA 06/20/2017 2017-FFP_037399

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General Counsel
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General Counsel
Vermont Department of Environmental Conservation
1 National Life Drive, Main 2
Montpelier, VT 05620-3520

Peter Shumlin
Governor of Vermont
109 State Street, Pavilion
Montpelier, VT 05609

RE: ***VW Emissions Violations; Notice of Intent to Sue.***

Dear Sir or Madame:

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- VW Jetta TDI (Model Years 2009-15);
- VW Jetta SportWagen TDI (Model Years 2009-14);

- VW Golf TDI (Model Years 2010-15);
- VW Golf SportWagen TDI (Model Year 2015);
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- VW Passat TDI (Model Years 2012-15);
- Audi A3 TDI (Model Years 2010-15);
- VW Toureg (Model Years 2014-15);
- Porsche Cayenne (Model Years 2014-2016);
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The defeat devices masked real world NOx emissions that exceeded emissions levels authorized by the U.S. Environmental Protection Agency limits by 9 to 40 times.

VW has widely admitted to its violation of E.P.A. and California Air Resources Board rules and regulations (which have been adopted in 13 states), and to its deception of state and federal regulators. On October 8, 2016, VW additionally publicly announced that some or all of its SCR engines may be non-compliant with state and federal regulations. On November 2, 2015, the United States Environmental Protection Agency issued a notice of violation regarding a portion of these vehicles and VW immediately imposed a sales ban on all late-model vehicles with 3.0 liter diesel engines in the United States. VW executives at the highest level of the company were aware of these emissions violations and these individuals authorized concealment through the use of a sophisticated software code that understood when an engine was being subjected to an emissions test. The software then altered engine settings to allow the vehicle to pass the emissions test. Thereafter, the engine would revert to normal settings for real-world driving conditions.

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should know that such part or component is being offered for sale or installed for such use or put to such use.'" CAA § 203(a)(3)(B), 42 U.S.C. § 7522(a)(3)(B); 40 C.F.R. § 86. 1854-12(a)(3)(ii). Additionally, manufacturers are prohibited from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing, any new motor vehicle unless that vehicle is covered by an EPA-issued Certificate of Conformity ("COC"). CAA § 203(a)(1), 42 U.S.C. § 7522(a)(1); 40 C.F.R. § 86. 1854-1 2(a)(l). It is also a violation to cause any of the foregoing acts. CAA § 203(a), 42 U.S.C. § 7522(a); 40 C.F.R. § 86-1854- 12(a).

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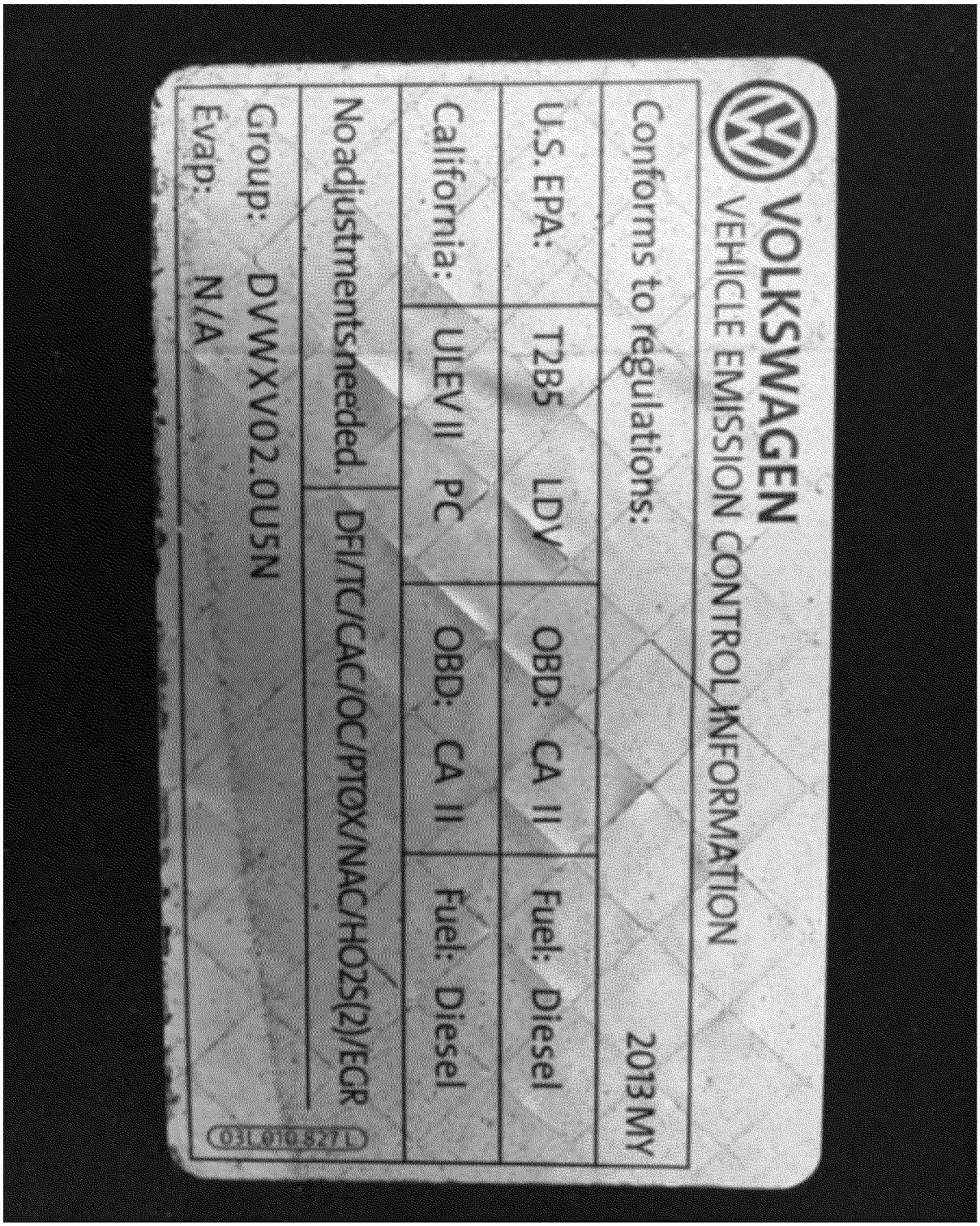
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[2] $32,500 for violations occurring prior to January 13, 2009.


VOLKSWAGEN
VEHICLE EMISSION CONTROL INFORMATION
Conforms to regulations:
2013 MY
U.S. EPA:
T2B5
LDV
OBD: CA II
Fuel: Diesel
California:
ULEV II
PC
OBD: CA II
Fuel: Diesel
No adjustments needed.
DFI/TC/CAC/OC/PTOX/NAC/HO2S(2)/EGR
Group: DVWXV02.0U5N
Evap: N/A
03L 010 827 A

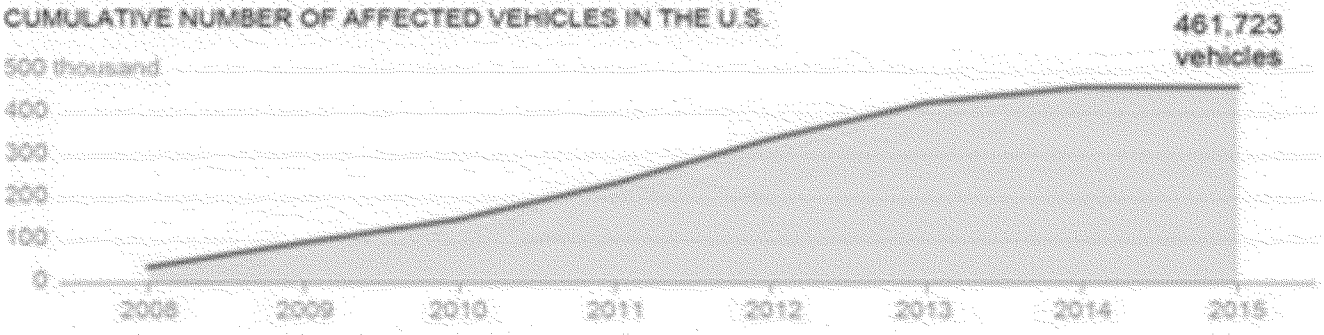
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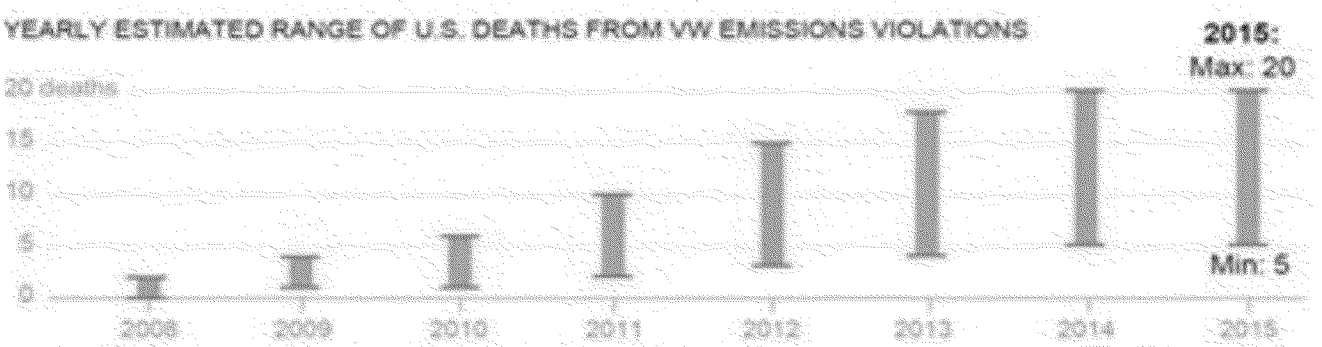
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U.S. pollution resulting from Volkswagen's dodging of emissions tests is enough to have caused dozens of deaths since 2008. An AP analysis calculated upper and lower limits of pollution using the number of affected vehicles each year and average mileage. Scientists used that data in epidemiological computer models to estimate a range of deaths.

CUMULATIVE NUMBER OF AFFECTED VEHICLES IN THE U.S.

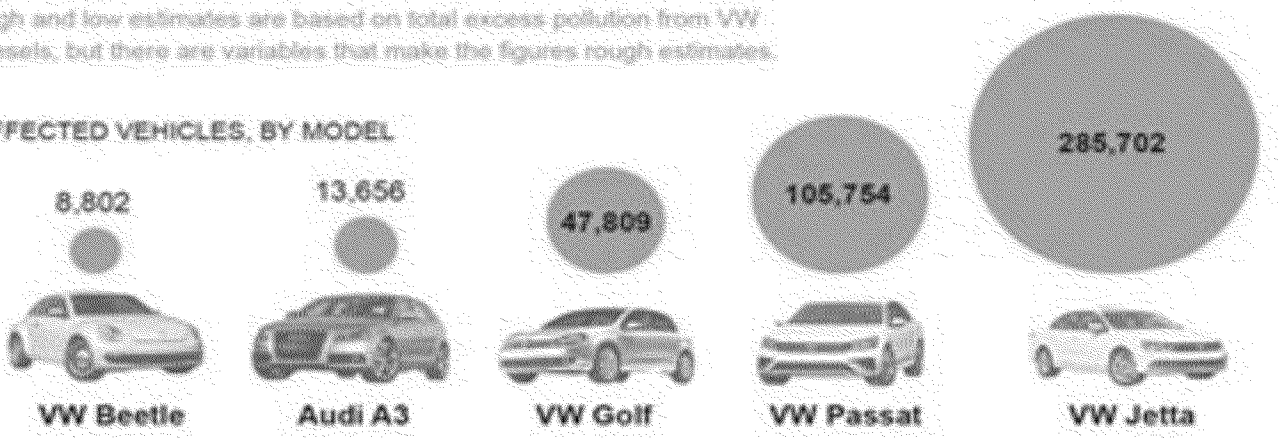


YEARLY ESTIMATED RANGE OF U.S. DEATHS FROM VW EMISSIONS VIOLATIONS



High and low estimates are based on total excess pollution from VW diesels, but there are variables that make the figures rough estimates.

AFFECTED VEHICLES, BY MODEL



NOTE: The total of 47,809 for VW Golf includes 3,530 VW Golf Sportswagen vehicles. The total figure of 461,723 is derived from Kelley Blue Book vehicle registration data. The Environmental Protection Agency estimates the total number of affected vehicles in the U.S. to be about 482,000.

SOURCES: AP analysis of data from the U.S. Environmental Protection Agency and Kelley Blue Book; AP Professor Peter Adams, Carnegie Mellon; Volkswagen; Audi

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[redacted]

As the AP article notes, the Class Vehicles released enough NOx over the course of seven years to significantly degrade the environment in urban areas.

The full name and contact of the parties giving notice are as follows: Maria Bourn, David Watson, Stephen Verner, Mark Schumacher and the Center for Auto Safety, each of whom may be contacted through their counsel, Hausfeld LLP, 600 Montgomery Street, 32nd Floor, San Francisco, CA 94111 (Tel.: 415-633-1908).

The parties give you notice of their intent to sue the VW entities identified above pursuant to 42 U.S.C. § 7604(a)(1) sixty days following the date of this notice in the United States District Court for the Eastern District of Virginia. Notice is deemed given on the postmark date. See 40 C.F.R. § 54.2(d)

If you believe that any portion of this notice is provided in error, or if you wish to discuss any portion of this notice, please do not hesitate to contact me.

Very truly yours,



Christopher L. Lebsock
Partner

VW FOIA, EPA 06/20/2017 2017-FFP_037407

EXHIBIT 2

HAUSFELD

CHRISTOPHER L. LEBSOCK
Partner

600 Montgomery Street
Suite 3200
San Francisco, CA 94111

415-633-1949 Direct
415-633-1908 Main
415-358-4980 Fax

clebsock@hausfeld.com

November 5, 2015

VIA CERTIFIED U.S. MAIL

Ex. 7

Audi AG
Inglostadt
Bayern 85057
Germany

Porsche AG
Dr. Ing. h.c. F. Porsche AG
Porscheplatz 1
D - 70435 Stuttgart

Porsche Cars North America, Inc.
One Porsche Drive
Atlanta, GA 30354

Ex. 7

Audi of America, Inc.
c/o Corporation Service Company
Bank of America Center
111 East Main Street
Richmond, VA 23219

Ex. 7

Ex. 7

Ex. 7

Ex. 7

General Counsel
Audi of America, Inc.
2200 Ferdinand Porsche Drive
Herndon, VA 20171

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Regional Administrator
Pacific Northwest Region
Environmental Protection Agency
1200 6th Avenue, Suite 900
Seattle, WA 98101

Jay Inslee
Governor of Washington State
PO Box 40002
Olympia, WA 98504-0002

General Counsel
Washington Department of Ecology
300 Desmond Drive SE,
Lacey, WA 98503

Regional Administrator
New England Region
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Charlie Baker
Governor of Massachusetts
Massachusetts State House
Office of the Governor, Room 280
Boston, MA 02133

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Boston, Massachusetts 02108

Regional Administrator
Region 2
Environmental Protection Agency
290 Broadway
New York, NY 10007-1866

Andrew Cuomo
Governor of New York
NYS State Capitol Building
Albany, NY 12224

General Counsel
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Environmental Conservation
625 Broadway
Albany, New York 12233-0001

Regional Administrator
Mid-Atlantic Region
Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103-2029

General Counsel
Pennsylvania Department of Environmental
Protection
Rachel Carson State Office Building
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Harrisburg, PA 17101

Tom Wolf
Governor of Pennsylvania
508 Main Capitol Building
Harrisburg, PA 17120

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General Counsel
Arizona Department of Environmental Quality
1110 W. Washington Street
Phoenix, AZ 85007

Douglas Ducey
Governor of Arizona
1700 West Washington Street
Phoenix, AZ 85007

General Counsel
Connecticut Department of Energy & Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Daniel P. Malloy
Governor of Connecticut
210 Capitol Avenue
Hartford, CT 06106

General Counsel
Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

Paul R. LePage
Governor of Maine
1 State House Station
Augusta, ME 04333-0001

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Maryland Department of the Environment
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Baltimore, MD 21230

Larry Logan
Governor of Maryland
100 State Circle
Annapolis, MD 21401

General Counsel
New Jersey Department of Environmental Protection
401 E. State St.
7th Floor, East Wing
P.O. Box 402
Trenton, NJ 08625-0402

Chris Christie
Governor of New Jersey
PO Box 001
Trenton, NJ 08625

General Counsel
New Mexico Environment Department
Harold L. Runnels Building
1190 St. Francis Drive, Suite N4050
Santa Fe, New Mexico 87505

Susana Martinez
Governor of New Mexico
490 Old Santa Fe Trail, Room 400
Santa Fe, NM 87501

VW FOIA, EPA 06/20/2017 2017-FFP_037411

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General Counsel
Oregon Department of Environmental Quality
811 SW 6th Avenue
Portland, OR 97204-1390

Kate Brown
Governor of Oregon
160 State Capitol
900 Court Street
Salem, OR 97301-4047

General Counsel
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, RI 02908-5767

Gina M. Raimondo
Governor of Rhode Island
82 Smith Street
Providence, RI 02903

General Counsel
Vermont Department of Environmental Conservation
1 National Life Drive, Main 2
Montpelier, VT 05620-3520

Peter Shumlin
Governor of Vermont
109 State Street, Pavilion
Montpelier, VT 05609

RE: ***VW Emissions Violations; Notice of Intent to Sue.***

Dear Sir or Madame:

Pursuant to 42 U.S.C. § 7604(b), we write to notify you that Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen of America, Inc., Porsche Cars North America, Inc., and Audi of America, Inc. (collectively "VW") are alleged to have violated the Clean Air Act ("CAA"), 42 U.S.C. §§ 7401 - 7671q, and its implementing regulations, and the motor vehicle emissions laws, regulations and orders of California, Arizona, Connecticut, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington by installing "defeat devices" on its emissions control systems for at least the following Volkswagen, Porsche, and Audi vehicles with diesel engines sold in the United States:

- VW Jetta TDI (Model Years 2009-15);
- VW Jetta SportWagen TDI (Model Years 2009-14);

- VW Golf TDI (Model Years 2010-15);
- VW Golf SportWagen TDI (Model Year 2015);
- VW Beetle TDI and VW Beetle Convertible TDI (Model Years 2012-15);
- VW Passat TDI (Model Years 2012-15);
- Audi A3 TDI (Model Years 2010-15);
- VW Toureg (Model Years 2014-15);
- Porsche Cayenne (Model Years 2014-2016);
- Audi A6 Quattro, A7 Quattro, A8, A8L, and Q5 (Model Years 2015-16).

The defeat devices masked real world NOx emissions that exceeded emissions levels authorized by the U.S. Environmental Protection Agency limits by 9 to 40 times.

VW has widely admitted to its violation of E.P.A. and California Air Resources Board rules and regulations (which have been adopted in 13 states), and to its deception of state and federal regulators. On October 8, 2016, VW additionally publicly announced that some or all of its SCR engines may be non-compliant with state and federal regulations. On November 2, 2015, the United States Environmental Protection Agency issued a notice of violation regarding a portion of these vehicles and VW immediately imposed a sales ban on all late-model vehicles with 3.0 liter diesel engines in the United States. VW executives at the highest level of the company were aware of these emissions violations and these individuals authorized concealment through the use of a sophisticated software code that understood when an engine was being subjected to an emissions test. The software then altered engine settings to allow the vehicle to pass the emissions test. Thereafter, the engine would revert to normal settings for real-world driving conditions.

The CAA makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or

should know that such part or component is being offered for sale or installed for such use or put to such use.'" CAA § 203(a)(3)(B), 42 U.S.C. § 7522(a)(3)(B); 40 C.F.R. § 86. 1854-12(a)(3)(ii). Additionally, manufacturers are prohibited from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing, any new motor vehicle unless that vehicle is covered by an EPA-issued Certificate of Conformity ("COC"). CAA § 203(a)(1), 42 U.S.C. § 7522(a)(1); 40 C.F.R. § 86. 1854-1 2(a)(l). It is also a violation to cause any of the foregoing acts. CAA § 203(a), 42 U.S.C. § 7522(a); 40 C.F.R. § 86-1854- 12(a).

"Vehicles are covered by a certificate of conformity only if they are in all material respects as described in the manufacturer's application for certification . . . ." 40 C.F.R. § 86.1848-10(c)(6). Similarly, a COC issued by EPA, including those issued to VW, state expressly, "[t]his certificate covers only those new motor vehicles or vehicle engines which conform, in all material respects, to the design specifications" described in the application for that COC. *See also* 40 C.F.R. §§ 86. 1844-01 (listing required content for COC applications), 86.1848-0 l (b) (authorizing the EPA to issue COCs on any terms that are necessary or appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

Motor vehicles equipped with defeat devices, such as those at issue here, cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86-1809-01, 86- 1809-10, 86-1809-1 2. Electronic control systems which may receive inputs from multiple sensors and control multiple actuators that affect the emission control system's performance are AECDs. EPA, *Advisaty Circular Number 24-2: Prohibition of Emission Control Defeat Devices - Optional Objective Criteria* (Dec. 6, 1978). "Such elements of design could be control system logic (i.e., computer software), and/or calibrations, and/or hardware items." *Id.*

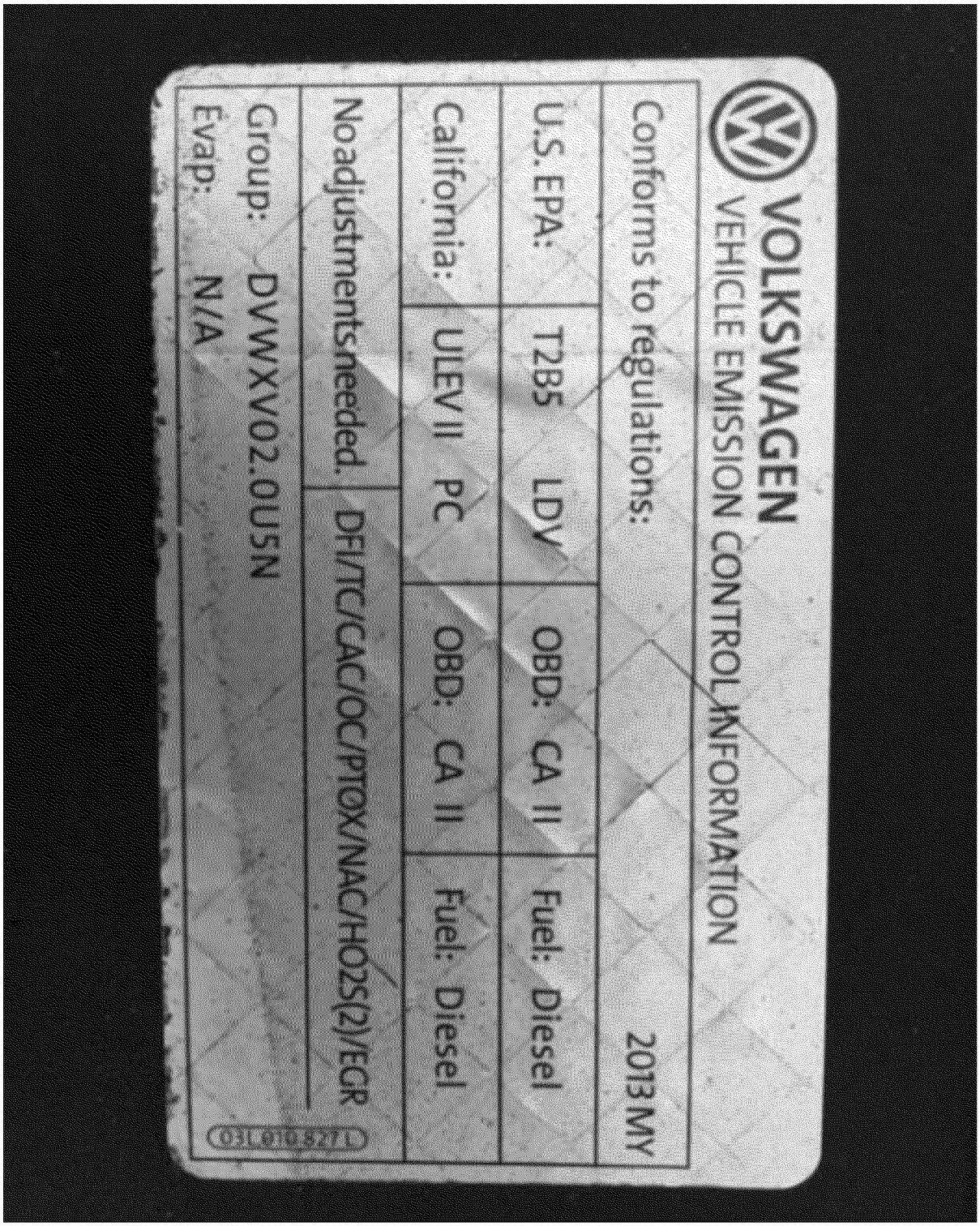
To obtain a COC, a light-duty vehicle manufacturer must submit a COC application to the EPA for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1 843-0 1. The COC application must include, among other things, a list of all auxiliary emission control devices (AECDs) installed on the vehicles. 40 C.F.R. § 86. 1844-01 (d)(11). An AECD is "any element of design which senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86. 1803-01. The COC application must also include "ajustification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a

defeat device." 40 C. F .R. § 86. 1844-01 (d)(11). A defeat device is an AECD " that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . ... " 40 C.F.R. § 86. 1803-01.

Persons who violate section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B), are subject to a civil penalty of up to $3,750 for each violation that occurred on or after January 13, 2009;[1] CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4. In addition, any manufacturer who, on or after January 13, 2009, sold, offered for sale, introduced into commerce, delivered for introduction into commerce, imported, or caused any of the foregoing acts with respect to any new motor vehicle that was not covered by an EPA-issued COC is subject, among other things, to a civil penalty of up to $37,500 for each violation.[2] CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4. Additional equitable remedies to further address these alleged violations are also authorized. CAA § 204(a). 42 U.S.C. § 7523(a).

VW's certifications, which are affixed to hundreds of thousands of non-compliant vehicles are false. An exemplar of these certifications is as follows:

[1] $2.750 for violations occurring prior to January 13. 2009.
[2] $32,500 for violations occurring prior to January 13, 2009.


VOLKSWAGEN
VEHICLE EMISSION CONTROL INFORMATION
Conforms to regulations:
2013 MY
U.S. EPA:
T2B5
LDV
OBD: CA II
Fuel: Diesel
California:
ULEV II
PC
OBD: CA II
Fuel: Diesel
No adjustments needed.
DFI/TC/CAC/OC/PTOX/NAC/HO2S(2)/EGR
Group: DVWXV02.0U5N
Evap: N/A
03L 010 827 A

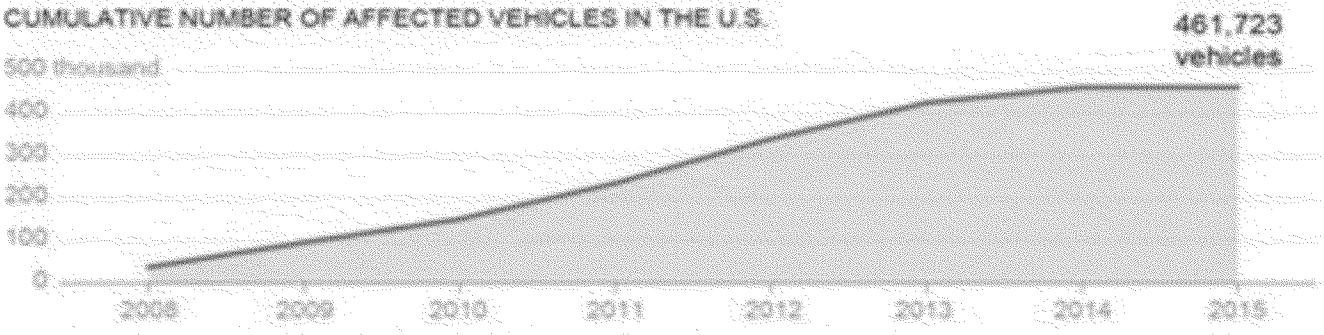
VW's conduct has contributed to significant degradation of air quality in urban environments and has been estimated to have contributed to respiratory and other health problems and death of dozens of people in the United States over the last seven years. On October 3, Associated Press ("AP") laid out the facts in the chart that follows:

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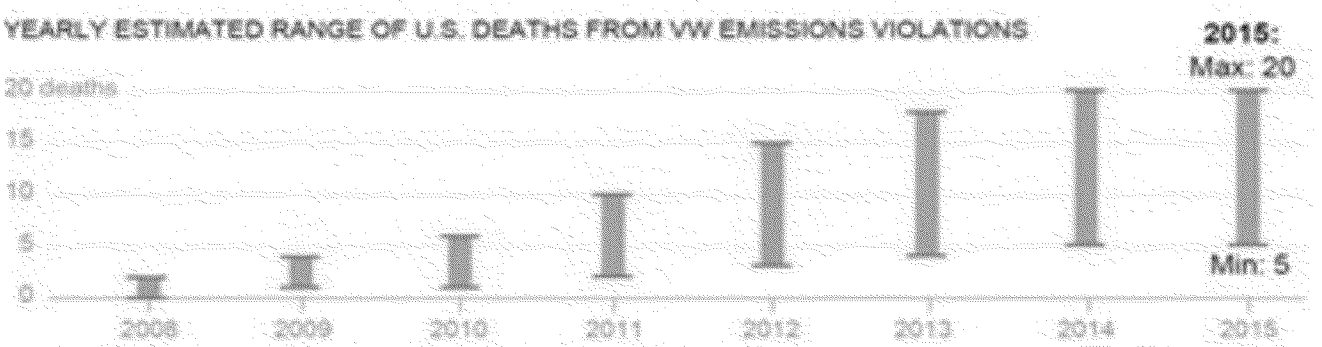
Calculating human toll of VW emissions problems

U.S. pollution resulting from Volkswagen's dodging of emissions tests is enough to have caused dozens of deaths since 2008. An AP analysis calculated upper and lower limits of pollution using the number of affected vehicles each year and average mileage. Scientists used that data in epidemiological computer models to estimate a range of deaths.

CUMULATIVE NUMBER OF AFFECTED VEHICLES IN THE U.S.

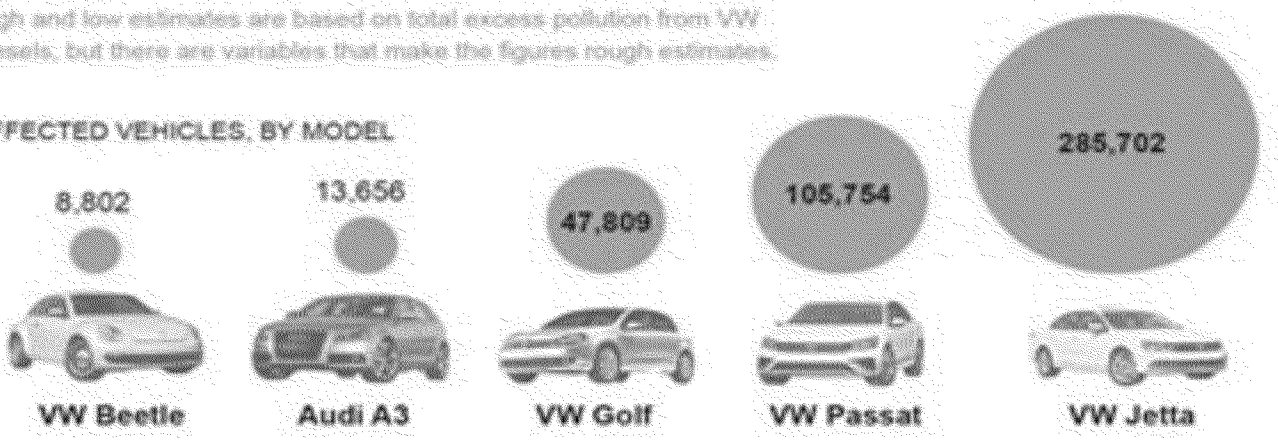


YEARLY ESTIMATED RANGE OF U.S. DEATHS FROM VW EMISSIONS VIOLATIONS



High and low estimates are based on total excess pollution from VW diesels, but there are variables that make the figures rough estimates.

AFFECTED VEHICLES, BY MODEL



NOTE: The total of 47,809 for VW Golf includes 3,530 VW Golf Sportswagen vehicles. The total figure of 461,723 is derived from Kelley Blue Book vehicle registration data. The Environmental Protection Agency estimates the total number of affected vehicles in the U.S. to be about 482,000.

SOURCES: AP analysis of data from the U.S. Environmental Protection Agency and Kelley Blue Book; AP Professor Peter Adams, Carnegie Mellon; Volkswagen; Audi

HAUSFELD

[redacted]

As the AP article notes, the Class Vehicles released enough NOx over the course of seven years to significantly degrade the environment in urban areas.

The full name and contact of the parties giving notice are as follows: Maria Bourn, David Watson, Stephen Verner, Mark Schumacher and the Center for Auto Safety, each of whom may be contacted through their counsel, Hausfeld LLP, 600 Montgomery Street, 32nd Floor, San Francisco, CA 94111 (Tel.: 415-633-1908).

The parties give you notice of their intent to sue the VW entities identified above pursuant to 42 U.S.C. § 7604(a)(1) sixty days following the date of this notice in the United States District Court for the Eastern District of Virginia. Notice is deemed given on the postmark date. See 40 C.F.R. § 54.2(d)

If you believe that any portion of this notice is provided in error, or if you wish to discuss any portion of this notice, please do not hesitate to contact me.

Very truly yours,

Christopher L. Lebsock
Partner

VW FOIA, EPA 06/20/2017 2017-FFP_037419

To: Belser, Evan[Belser.Evan@epa.gov]
From: Kulschinsky, Edward
Sent: Tue 1/19/2016 3:51:51 PM
Subject: FW: Request for Copy of Complaint
ENV_ENFORCEMENT-#2565078-v1-VW__complaint_filed (00000002).pdf
ENV_ENFORCEMENT-#2565234-v1-VW__Hausfeld_intervention.pdf

FYI

From: Kulschinsky, Edward
Sent: Tuesday, January 19, 2016 10:50 AM
To: Ex. 6
Subject: Request for Copy of Complaint

Hello Luc,

In response the voicemail you left last week, here is a copy of the complaint the United States recently filed against Volkswagen, as well as a motion to intervene filed in that suit.

Best regards,

Ed Kulschinsky
Attorney-Advisor

Mobile Source Enforcement Branch

Air Enforcement Division

Office of Civil Enforcement

U.S. Environmental Protection Agency

202-564-4133
kulschinsky.edward@epa.gov

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc., Defendants.	)	Civil Action No.

COMPLAINT

The United States of America, by authority of the Attorney General of the United States and at the request of the Administrator of the United States Environmental Protection Agency ("EPA"), files this complaint and alleges as follows:

NATURE OF ACTION

1. This is a civil action brought pursuant to Sections 204 and 205 of the Clean Air Act ("Act"), 42 U.S.C. §§ 7523 and 7524, for injunctive relief and the assessment of civil penalties against Volkswagen AG, Audi AG, Volkswagen Group of America, Inc. ("VWoA"), Volkswagen Group of America Chattanooga Operations, LLC ("VWoA Chattanooga"), Dr. Ing. h.c. F. Porsche AG ("Porsche AG"), and Porsche Cars North America, Inc. (collectively, "VW") for violations of the Act and regulations promulgated thereunder.

JURISDICTION AND VENUE

2. This Court has jurisdiction over the subject matter of and the parties to this action pursuant to Sections 203, 204, and 205 of the Act, 42 U.S.C. §§ 7522, 7523, and 7524, and 28 U.S.C. §§ 1331, 1345, and 1355.

3. This Court has personal jurisdiction over Defendant Volkswagen AG under Mich. Comp. Laws § 600.705 because Volkswagen AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Defendant Volkswagen AG is consistent with due process.

4. Among other things, Defendant Volkswagen AG interacts with Defendant VWoA, its wholly-owned subsidiary, which has an office in Auburn Hills, Michigan and this judicial district, by regularly submitting information to VWoA necessary for VWoA to complete the required applications to obtain certificates of conformity ("COCs") for a significant number of the vehicles Volkswagen AG sells in the United States. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with its wholly-owned subsidiary, Volkswagen AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Volkswagen AG has also attended meetings at, and had other communications with, EPA's Ann Arbor, Michigan Office of Transportation and Air Quality ("OTAQ"), the EPA office in charge of issuing COCs. Further, Volkswagen AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

5. This Court has personal jurisdiction over Defendant VWoA under Mich. Comp. Laws § 600.705 because it transacts business in Michigan. In addition, this Court's exercise of

VW FOIA, EPA 06/20/2017 2017-FFP_037423

jurisdiction over VWoA is consistent with due process.

6. Among other things, VWoA has an Engineering and Environmental Office in Auburn Hills, Michigan from which it interacts with EPA OTAQ in connection with obtaining many of the COCs for vehicles sold in the United States, including many of the light duty diesel vehicles addressed in this Complaint. Further, VWoA delivered or arranged for delivery of many of the vehicles addressed in this Complaint, within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

7. This Court has personal jurisdiction over Defendant Audi AG under Mich. Comp. Laws § 600.705 because Audi AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Audi AG is consistent with due process.

8. Among other things, Audi AG has interacted with VWoA's Auburn Hills, Michigan office by regularly submitting information to VWoA's Auburn Hills office necessary for VWoA to complete the required applications to obtain COCs for the vehicles that Audi AG sells in the United States, including the light duty diesel vehicles addressed in this Complaint. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with VWoA, Audi AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Audi AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Audi AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

9. This Court has personal jurisdiction over Defendant Volkswagen Group of America

VW FOIA, EPA 06/20/2017 2017-FFP_037424

Chattanooga Operations, LLC, under Mich. Comp. Laws § 600.705 because VWoA Chattanooga transacts business in Michigan. In addition, this Court's exercise of jurisdiction over VWoA Chattanooga is consistent with due process.

10. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, VWoA is the corporate parent of VWoA Chattanooga; VWoA Chattanooga manufactures certain Passats; VWoA Chattanooga interacts with VWoA, in connection with vehicle manufacturing and other matters; in connection with this and other interactions with its parent company, VWoA Chattanooga has attended meetings at VWoA's Auburn Hills, Michigan office and/or corresponded, telephoned and otherwise communicated with VWoA's Auburn Hills office. Further, VWoA Chattanooga delivered or arranged for delivery of its cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

11. This Court has personal jurisdiction over Defendant Porsche AG under Mich. Comp. Laws § 600.705 because Porsche AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche AG is consistent with due process.

12. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche AG has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche AG has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor,

VW FOIA, EPA 06/20/2017 2017-FFP_037425

Michigan. Further, Porsche AG delivered or arranged for delivery of Porsche cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

13. This Court has personal jurisdiction over Defendant Porsche Cars North America, Inc. under Mich. Comp. Laws § 600.705 because Porsche Cars North America, Inc. transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche Cars North America, Inc. is consistent with due process.

14. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche Cars North America, Inc. has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche Cars North America, Inc. has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche Cars North America, Inc. has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Porsche Cars North America, Inc. delivered or arranged for delivery of Porsche cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

15. Venue is proper in this jurisdiction pursuant to Sections 204 and 205 of the Act, 42 U.S.C. §§ 7523 and 7524, because violations occurred in this judicial district and VWoA has a corporate office within this judicial district.

VW FOIA, EPA 06/20/2017 2017-FFP_037426

DEFENDANTS

16. Volkswagen AG is a publicly-held German corporation.

17. Volkswagen AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

18. Volkswagen AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

19. Volkswagen Group of America, Inc. is incorporated under the laws of the State of New Jersey, and is a wholly-owned subsidiary of Volkswagen AG.

20. Volkswagen Group of America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

21. Volkswagen Group of America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

22. Volkswagen Group of America Chattanooga Operations, LLC is incorporated under the laws of the State of Tennessee, and is a wholly-owned subsidiary of VWoA.

23. Volkswagen Group of America Chattanooga Operations, LLC is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

24. Volkswagen Group of America Chattanooga Operations, LLC is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

25. Audi AG is a German corporation, and is approximately 99.55% owned by Volkswagen AG.

26. Audi AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

VW FOIA, EPA 06/20/2017 2017-FFP_037427

27. Audi AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

28. Porsche AG is a German corporation, and is wholly-owned by Volkswagen AG.

29. Porsche AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

30. Porsche AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

31. Porsche Cars North America, Inc. is a Delaware corporation, and is a wholly-owned subsidiary of Porsche AG.

32. Porsche Cars North America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

33. Porsche Cars North America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

34. At all times relevant to this action, VW was engaged in the business of manufacturing new motor vehicles, and selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing (or causing the foregoing with respect to) these vehicles in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_037428

STATUTORY AND REGULATORY BACKGROUND

35. This action arises under Title II of the Act, as amended, 42 U.S.C. § 7521 *et seq.*, and the regulations promulgated thereunder, which aim to protect human health and the environment by reducing emissions of nitrogen oxides ("NOx") and other pollutants from mobile sources of air pollution, including new motor vehicles.

36. NOx is a family of highly reactive gases that play a major role in the atmospheric reactions with volatile organic compounds that produce ozone in the atmosphere. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Breathing ozone can also worsen bronchitis, emphysema, and asthma, and can lead to premature death. Children are at greatest risk of experiencing negative health impacts from exposure to ozone. Additionally, recent scientific studies indicate that the direct health effects of NOx are worse than previously understood, including respiratory problems, damage to lung tissue, and premature death.

37. Section 202(a) of the Act, 42 U.S.C. § 7521(a), requires EPA to promulgate emissions standards for new motor vehicles for NOx, and other air pollutants.

38. 40 C.F.R. Part 86 sets emission standards and test procedures for light-duty motor vehicles, including emission standards for NOx. *See* 40 C.F.R. § 86.1811-04.

A. Certificates of Conformity and Prohibition on Uncertified Motor Vehicles

39. Light-duty vehicles must satisfy emission standards for certain air pollutants. 40 C.F.R. §§ 86.1811-04, 86.1811-09, 86.1811-10. EPA administers a certification program to ensure that every new motor vehicle introduced into United States commerce satisfies applicable emission standards. 42 U.S.C. § 7521. Under this program, EPA issues COCs and thereby

VW FOIA, EPA 06/20/2017 2017-FFP_037429

regulates the introduction of new motor vehicles into United States commerce.

40. To obtain a COC, a manufacturer must submit an application to EPA for each model year and for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1843-01. A test group is comprised of vehicles with similar emissions profiles for pollutants regulated under the Act. *See, e.g.,* 40 C.F.R. §§ 86.1803-01, 86.1827-01.

41. Vehicles are covered by a COC only if the vehicles are as described in the manufacturer's application for the COC "in all material respects." 40 C.F.R. § 86.1848-10(c)(6).

42. EPA issues COCs "upon such terms . . . as [the Administrator] may prescribe." 42 U.S.C. § 7525(a)(1); *see also* 40 C.F.R. § 86.1848-01(b) (authorizing EPA to issue COCs on any terms that are necessary and appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

43. Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), prohibits manufacturers of new motor vehicles from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or any person from importing into the United States any new motor vehicle not covered by a COC issued by EPA under regulations prescribed by the Act governing vehicle emission standards. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

B. Prohibition on Defeat Devices and Tampering

44. Each COC application must include, among other things, a list of all auxiliary emission control devices ("AECDs") installed on the vehicles. 40 C.F.R. § 86.1844-01(d)(11).

45. An AECD is "any element of design which senses temperature, vehicle speed, engine [revolutions per minute], transmission gear, manifold vacuum, or any other parameter for

VW FOIA, EPA 06/20/2017 2017-FFP_037430

the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.1803-01.

46. An element of design is "any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine." 40 C.F.R. § 86.1803-01.

47. Each COC application must also include "a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device." 40 C.F.R. § 86.1844-01(d)(11).

48. A motor vehicle containing an AECD that can reasonably be expected to affect emission controls and is not disclosed or justified in the COC application does not conform in all material respects with the COC application, and is therefore not covered by the COC.

49. A "defeat device" is an AECD "that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . . . ." 40 C.F.R. § 86.1803-01.

50. Motor vehicles equipped with defeat devices cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86.1809-01, 86.1809-10, 86.1809-12.

VW FOIA, EPA 06/20/2017 2017-FFP_037431

51. Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." *See also* 40 C.F.R. § 86.1854-12(a)(3)(ii).

52. Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), prohibits any person from removing or rendering inoperative any device or element of design installed on a motor vehicle in compliance with the regulations promulgated under Title II of the Act prior to its sale and delivery to the ultimate purchaser.

53. It is also a violation to cause any of the acts set forth in Section 203(a)(3). 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

C. Reporting Requirements

54. Section 208(a) of the Act, 42 U.S.C. § 7542(a), requires that "[e]very manufacturer of new motor vehicles . . . establish and maintain records, perform tests . . . make reports, and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting in compliance" with Part A of Title II of the Act.

55. Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), prohibits any person from failing or refusing to make reports or provide information to EPA pursuant to Section 208 of the

VW FOIA, EPA 06/20/2017 2017-FFP_037432

Act, 42 U.S.C. § 7542. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

GENERAL ALLEGATIONS

56. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix A to this Complaint ("2.0L Subject Vehicles").

57. Each of the 2.0L Subject Vehicles is equipped with a 2.0 liter diesel engine, and is part of model years 2009-2015.

58. In total, approximately 500,000 2.0L Subject Vehicles were sold in the United States.

59. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for the 2.0L Subject Vehicles.

60. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix B to this Complaint ("3.0L Subject Vehicles").

61. Each of the 3.0L Subject Vehicles is equipped with a 3.0 liter diesel engine, and is part of model years 2009-2016.

62. In total, approximately 80,000 3.0L Subject Vehicles were sold in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_037433

63. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for certain 3.0L Subject Vehicles.

64. Porsche Cars North America, Inc. submitted to EPA, on behalf of itself, and representing Porsche AG, the applications for COCs for certain 3.0L Subject Vehicles.

65. Each COC issued by EPA during the time period relevant to this Complaint states on its face that the certificate covers only those new motor vehicles that conform, in all material respects, to the design specifications provided to EPA in the certificate application for such vehicle.

66. Each application for a COC constitutes a "report [and/or] information the Administrator may reasonably require . . ." to assess compliance with the Act, within the meaning of Section 208(a) of the Act, 42 U.S.C. § 7542(a).

A. The 2.0L Subject Vehicles

67. Each 2.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 2.0L Subject Vehicle.

68. The electronic control module ("ECM") of the 2.0L Subject Vehicles contains software logic and/or calibrations that sense when the vehicle is being tested for compliance with applicable emission standards, based on various inputs including the position of the steering wheel, vehicle speed, the duration of the engine's operation, and barometric pressure. These inputs precisely track the parameters of the federal test procedure ("FTP") and other test cycles used for emission testing required to obtain a COC.

VW FOIA, EPA 06/20/2017 2017-FFP_037434

69. During FTP emission testing, the 2.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration that VW has referred to as the "dyno calibration" (referring to the equipment used in emissions testing, called a dynamometer). At all other times during normal vehicle operation, the 2.0L Subject Vehicles' ECM software run a separate "road calibration" that reduces the effectiveness of the emission control system. In other words, the 2.0L Subject Vehicles' ECM software tracks the parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

70. The COC applications for the 2.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 2.0L Subject Vehicles' COC applications.

71. The 2.0L Subject Vehicles therefore are not covered by a COC.

72. This dual-calibration system results in increased NOx emissions by a factor of up to 40 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

73. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

74. VW entities including at least Volkswagen AG, VWoA and Audi AG knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

VW FOIA, EPA 06/20/2017 2017-FFP_037435

75. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

B. The 3.0L Subject Vehicles

76. Each 3.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 3.0L Subject Vehicles.

77. The ECM of the 3.0L Subject Vehicles contains software logic and/or calibrations that cause the vehicle to perform differently when the vehicle is being tested for compliance with applicable emission standards, based on various inputs that appear to track the FTP and/or other test cycles used for emission testing required to obtain a COC, than when the vehicle is in normal operation and use.

78. During FTP emission testing, the 3.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration referred to as the "temperature conditioning mode." At other times during normal vehicle operation, the 3.0L Subject Vehicles' ECM software run a separate "normal mode" that reduces the effectiveness of the emission control system. In other words, the 3.0L Subject Vehicles' ECM software tracks certain parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

79. The COC applications for the 3.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The

VW FOIA, EPA 06/20/2017 2017-FFP_037436

undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 3.0L Subject Vehicles' COC applications.

80. The 3.0L Subject Vehicles therefore are not covered by a COC.

81. This dual-calibration strategy results in increased NOx emissions by a factor of up to 9 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

82. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

83. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG and Porsche Cars North America, Inc. knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

84. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_037437

C. The Investigations and Concealment

85. In or about May 2014, West Virginia University's Center for Alternative Fuels, Engines & Emissions ("WVU") published results of a study commissioned by the International Council on Clean Transportation, and conducted in collaboration with the California Air Resources Board ("CARB"), that found on-road NOx emissions from two 2.0L VW light duty diesel vehicles (2012 Jetta and 2013 Passat) were significantly higher than the applicable emission standards established by EPA regulations.

86. Beginning in or about May 2014 through the present, CARB, in coordination with EPA, has investigated the reasons for the high in-use emissions, repeatedly questioning representatives from VWoA and Volkswagen AG about WVU's findings.

87. In or about October 2014, those VW entities responded that the increased emissions from the vehicles studied by WVU were attributable to various yet-to-be-identified technical issues with the after treatment emission control systems and in-use conditions not represented by the FTP.

88. VW entities including at least VWoA represented to regulators that the vehicles' software could be optimized to address the excess NOx emissions issue and issued a recall in December 2014 and March 2015 for 2.0L vehicles to address the excess emissions issue.

89. From approximately December 2014 through the present, CARB, in coordination with EPA, conducted its own testing to further investigate the reasons behind the high NOx emissions observed on VW's 2.0L light duty diesel vehicles during real world driving conditions, and to investigate the effectiveness of the recall action. This on-road and laboratory testing showed limited reduction in the rates of emission of NOx of the recalled vehicles, and also

VW FOIA, EPA 06/20/2017 2017-FFP_037438

revealed that the vehicles exhibited different behaviors during real world driving conditions than during FTP emission testing.

90. During the course of this investigation, VW entities including at least VWoA and Volkswagen AG suggested a number of potential technical issues and in-use conditions that might explain the higher emission test results, but none of those issues adequately explained why the 2.0L Subject Vehicles behaved differently while operating on the FTP test cycles versus while being driven on the road.

91. In or about September 2015, VW entities including at least VWoA and Volkswagen AG admitted that these 2.0L motor vehicles contained a defeat device in the form of a software algorithm or algorithms that detect when the vehicle is undergoing emission testing.

92. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 2.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least VWoA and Volkswagen AG.

93. VW entities including at least Volkswagen AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 2.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

94. On October 8, 2015, Mr. Michael Horn, VWoA President and Chief Executive Officer, testified before the United States House of Representatives Subcommittee on Oversight and Investigations Committee on Energy and Commerce, and admitted that VWoA and

VW FOIA, EPA 06/20/2017 2017-FFP_037439

Volkswagen AG's representations to EPA and CARB that the increased NOx emissions from the 2.0L Subject Vehicles were due to technical issues were false.

95. During his October 8, 2015 testimony, Mr. Horn further admitted that the installation of the "defeat device" in the 2.0L Subject Vehicles was a knowing and willful decision to deceive.

96. Even after EPA issued its September 18, 2015 Notice of Violation to Volkswagen AG, Audi AG, and VWoA, and Mr. Horn's testimony before Congress, VW failed to come forward and reveal to regulators that the 3.0L Subject Vehicles contain one or more undisclosed AECDs, including the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode." The existence of this dual calibration strategy was uncovered only as a result of EPA and CARB's diligence.

97. On November 2, 2015, EPA issued a Notice of Violation to Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc., citing violations of the Act related to the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode," and the resultant excess emissions in certain 3.0L light duty diesel vehicles.

98. VW entities including at least Volkswagen AG immediately issued a statement denying that software had been installed in 3.0L light duty diesel vehicles to alter emissions in a prohibited manner.

99. On or about November 23, 2015, VW entities including at least Volkswagen AG and Audi AG admitted that the 3.0L Subject Vehicles contain three undisclosed AECDs, one of which – the temperature conditioning mode – is regarded as a defeat device under the Act and implementing regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_037440

100. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 3.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least Volkswagen AG and Audi AG.

101. VW entities including at least Audi AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 3.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

FIRST CLAIM FOR RELIEF
(Section 203(a)(1): Sale, Offer for Sale, Introduction or Delivery for Introduction into Commerce, or Import of New Motor Vehicles Not Covered by COCs)

102. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

103. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 500,000 2.0L Subject Vehicles that were not covered by COCs (or caused any of the foregoing) because the 2.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 2.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 2.0L Subject Vehicles' emission controls.

104. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 80,000 3.0L Subject Vehicles that were not covered by COCs (or

VW FOIA, EPA 06/20/2017 2017-FFP_037441

caused any of the foregoing) because the 3.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 3.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 3.0L Subject Vehicles' emission controls.

105. VW violated Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), by selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing new motor vehicles that were not covered by a COC, or by causing any of the foregoing acts.

106. Each such violation of Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), is a separate offense with respect to each new motor vehicle.

107. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW is liable for injunctive relief and civil penalties of up to $32,500 per vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

SECOND CLAIM FOR RELIEF
(Section 203(a)(3)(B): Manufacture, Sale, Offer for Sale, or Installation of Defeat Device)

108. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

109. VW entities including at least Volkswagen AG, VWoA and Audi AG manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended for use with, or as part of, motor vehicles, including the road-calibration AECDs installed on the 2.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 2.0L

VW FOIA, EPA 06/20/2017 2017-FFP_037442

Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Volkswagen AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

110. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended or use with, or as part of, motor vehicles, including the normal mode calibration AECDs installed on the 3.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 3.0L Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Audi AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

111. VW entities including at least Volkswagen AG and Audi AG violated Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), by manufacturing, selling, offering for sale, or installing "defeat devices" on new motor vehicles, or by causing any of the foregoing acts.

112. Each part or component that constitutes a "defeat device" manufactured, sold, offered for sale, or installed on new motor vehicles (or the causing thereof) is a separate violation of Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B).

113. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG and Audi AG are liable for injunctive relief and civil penalties of up to $2,750 per part or component that constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $3,750 per part or component that

VW FOIA, EPA 06/20/2017 2017-FFP_037443

constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

THIRD CLAIM FOR RELIEF
(Section 203(a)(3)(A): Tampering)

114. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

115. The road-calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

116. The normal mode calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

117. VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the road-calibration AECDs in the 2.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

118. VW entities including at least Volkswagen AG, Audi AG and Porsche AG violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the normal mode calibration AECDs in the 3.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

VW FOIA, EPA 06/20/2017 2017-FFP_037444

119. Each 2.0L Subject Vehicle equipped with the road-calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

120. Each 3.0L Subject Vehicle equipped with the normal mode calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and Porsche AG of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

121. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG and Porsche AG are liable for injunctive relief and civil penalties of up to $32,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

FOURTH CLAIM FOR RELIEF
(Section 203(a)(2): Reporting Violations)

122. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

123. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to disclose the existence of the road-calibration and/or other AECDs in the COC applications for the 2.0L Subject Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

124. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to disclose the existence of the normal mode calibration and/or other AECDs in the COC applications for the 3.0L Subject

VW FOIA, EPA 06/20/2017 2017-FFP_037445

Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

125. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to provide a justification for the road-calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the road-calibration and/or other AECDs are not a defeat device, in the COC applications for the 2.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

126. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to provide a justification for the normal mode calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the normal mode calibration and/or other AECDs are not a defeat device, in the COC applications for the 3.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

127. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to disclose one or more AECDs in a COC application for a test group of new motor vehicles.

128. VW entities including at least Volkswagen AG, Audi AG and VWoA violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 2.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

VW FOIA, EPA 06/20/2017 2017-FFP_037446

129. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 3.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

130. Each failure to provide reports or information described above is a separate violation of Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2).

131. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. are liable for injunctive relief and civil penalties of up to $32,500 per day of violation of Section 203(a)(2) occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per day of violation for such violations occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff, the United States of America, respectfully requests that the Court provide the following relief:

a. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle not covered by a COC issued by EPA in accordance with the Act and the regulations promulgated thereunder.

b. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the

VW FOIA, EPA 06/20/2017 2017-FFP_037447

foregoing acts) any new motor vehicle equipped with an AECD, except in compliance with the Act and the regulations promulgated thereunder.

c. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle equipped with a defeat device.

d. Permanently enjoin VW from bypassing, defeating, or rendering inoperative any device or element of design installed on or in a new motor vehicle in compliance with regulations promulgated under Title II of the Act.

e. Order VW to take appropriate steps, including, but not limited to, mitigation of excess NOx emissions, to remedy the violations of Sections 203(a)(1), 203(a)(3)(A), and 203(a)(3)(B) alleged above.

f. Enter a judgment that VW is liable to the United States for civil penalties for each violation of Section 203(a) of the Act, and assess civil penalties against VW as follows:

i. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(1) of the Act;

ii. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(A) of the Act;

VW FOIA, EPA 06/20/2017 2017-FFP_037448

iii. up to $2,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $3,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(B) of the Act; and

iv. up to $32,500 per day of violation occurring before January 13, 2009, and up to $37,500 per day of violation occurring on or after January 13, 2009 for violations of Section 203(a)(2) of the Act.

g. Award the United States its costs in this action; and

h. Grant such other and further relief as the Court deems just and proper.

VW FOIA, EPA 06/20/2017 2017-FFP_037449

Respectfully submitted,

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VW FOIA, EPA 06/20/2017 2017-FFP_037450

United States v. Volkswagen AG, et al.

APPENDIX A TO COMPLAINT

Identification of the 2.0L Subject Vehicles

Model Year	EPA Test Group	Vehicle Make and Model(s)
2009	9VWXV02.035N	VW Jetta, VW Jetta Sportwagen
2009	9VWXV02.0U5N	VW Jetta, VW Jetta Sportwagen
2010	AVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2011	BVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U4S	VW Passat
2013	DVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2013	DVWXV02.0U4S	VW Passat
2014	EVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2014	EVWXV02.0U4S	VW Passat
2015	FVGAV02.0VAL	VW Beetle, VW Beetle Convertible, VW Golf, VW Golf Sportwagen, VW Jetta, VW Passat, Audi A3

United States v. Volkswagen AG, et al.

APPENDIX B TO COMPLAINT

Identification of the 3.0L Subject Vehicles

Model Year	EPA Test Group(s)	Vehicle Make and Model(s)
2009	9ADXT03.03LD	VW Touareg, Audi Q7
2010	AADXT03.03LD	VW Touareg, Audi Q7
2011	BADXT03.02UG BADXT03.03UG	VW Touareg Audi Q7
2012	CADXT03.02UG CADXT03.03UG	VW Touareg Audi Q7
2013	DADXT03.02UG DADXT03.03UG DPRXT03.0CDD	VW Touareg Audi Q7 Cayenne Diesel
2014	EADXT03.02UG EADXT03.03UG EPRXT03.0CDD EADXJ03.04UG	VW Touareg Audi Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2015	FVGAT03.0NU2 FVGAT03.0NU3 FPRXT03.0CDD FVGAJ03.0NU4	VW Touareg Audi: Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2016	GVGAT03.0NU2 GPRXT03.0CDD GVGAJ03.0NU4	VW Touareg Cayenne Diesel A6 quattro, A7 quattro,A8, A8L, Q5

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiffs, v. VOLKSWAGEN AG, AUDI AG, VOLKSWAGEN GROUP OF AMERICA, INC., VOLKSWAGEN GROUP OF AMERICA CHATTANOOGA OPERATIONS, LLC, DR. ING. H.C. F. PORSCHE AG, and PORSCHE CARS NORTH AMERICA, INC., Defendants.	Case No. 2:16-cv-10006 Judge Laurie J. Michelson Magistrate Judge Michael J. Hluchaniuk

MOTION TO INTERVENE AS OF RIGHT BY PLAINTIFF-INTERVENORS MARIA BOURN, DAVID WATSON, STEPHEN VERNER, MARK SCHUMACHER, AND THE CENTER FOR AUTO SAFETY

Date: January 4, 2016

TABLE OF CONTENTS

CONCISE STATEMENT OF THE ISSUES PRESENTED iii
CONTROLLING AUTHORITY iv
TABLE OF AUTHORITIES v
MOTION 1
BRIEF IN SUPPORT 1
I. INTRODUCTION 1
II. FACTS 1
III. ARGUMENT 2
IV. CONCLUSION 6

CONCISE STATEMENT OF THE ISSUES PRESENTED

Maria Bourn, David Watson, Stephen Verner, Mark Sch umacher, and the Center for Auto Safety ("CAS") (collectively, "Prop osed Plaintiff-Intervenors") move to intervene as a matter of right in the insta nt action pursuant to Fed. R. Civ. P. 24(a)(1) and Section 304(b)(1)(B) of the Clean A ir Act ("CAA"), 42 U.S.C. § 7604(b)(1)(B). Should the Proposed Complaint in Intervention be filed? a

Proposed Plaintiff-Intervenors say: Yes

Plaintiff United States of America says: No oppos ition.

Defendants say: No

The Court should say: Yes

CONTROLLING AUTHORITY

Fed. R. Civ. P. 24(a)(1)

Section 304(b)(1)(B) of the Clean Air Act, 42 U.S.C. § 7604(b)(1)(B)

VW FOIA, EPA 06/20/2017 2017-FFP_037456

TABLE OF AUTHORITIES

Other Authorities

CAA § 302(e), 42 U.S.C. § 7602(e) 5

CAA § 304(a)(1), 42 U.S.C. § 7604(a)(1) 5

CAA § 304(b)(1)(B), 42 U.S.C. § 7604(b)(1)(B) ..... 1, 2, 3 ,6

Rules

Fed. R. Civ. P. 24 ..... 1, 2, 3, 6

Local Rule 7.1 1

MOTION

Maria Bourn, David Watson, Stephen Verner, Mark Schumacher, and the Center for Auto Safety ("CAS") (collectively, "Proposed Plaintiff-Intervenors") move to intervene as a matter of right in the instant action. In support of their Motion, the Proposed Plaintiff-Intervenors rely on the facts, law and argument set forth in their Brief in Support, which is hereby incorporated by reference.

In compliance with Local Rule 7.1, the Proposed Plaintiff-Intervenors have sought concurrence in the relief requested, and counsel for Plaintiff, United States of America, have indicated that they do not oppose the relief requested.

BRIEF IN SUPPORT

I. INTRODUCTION

Maria Bourn, David Watson, Stephen Verner, Mark Schumacher, and the Center for Auto Safety ("CAS") (collectively, "Proposed Plaintiff-Intervenors") hereby move to intervene as a matter of right in the above-captioned action pursuant to Fed. R. Civ. P. 24(a)(1) and section 304(b)(1)(B) of the Clean Air Act ("CAA"), 42 U.S.C. § 7604(b)(1)(B).

The United States has informed Proposed Plaintiff-Intervenors that it does not oppose their intervention.

II. FACTS

This action was filed on January 4, 2016, by the United States on behalf of the Administrator of the U.S. Environmental Protection Agency. Defendants in this

action are Volkswagen AG ("VWAG"), Volkswagen Group of America, Inc. ("VWoA"), Volkswagen Group of America Chattanooga Operations, LLC ("VWoA Chattanooga"), Audi AG, and Dr. Ing. h.c. F. Porsch e AG and Porsche Cars North America, Inc. (collectively, "Porsche"). [1] The United States' complaint alleges numerous violations of the CAA arising out of Volkswagen's use of "defeat devices" in their diesel vehicles. The United States seeks a permanent injunction against further CAA violations and civil penalties to redress those violations.

On October 9, 2015, and November 5, 2015, Proposed Plaintiff-Intervenors sent notice letters to Volkswagen regarding similar claims to those brought by the United States, as well as for violations of the mot or vehicle emissions laws, regulations, and orders of California, Connecticut,Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Rhode I sland, Vermont, and Washington. *See* Exhibits 1 and 2. Proposed Plaintiff-Intervenors are individuals and one organization who have been harmed by Volksw agen's violations of the CAA. Accordingly, Proposed Plaintiff-Intervenors a re entitled to "intervene as a matter of right" in this action to jointly prosecut e their claims against Volkswagen. *See* CAA § 304(b)(1)(B), 42 U.S.C. § 7604(b)(1)(B); Fed. R. Civ. P. 24.

III. ARGUMENT

Proposed Plaintiff-Intervenors are entitled to int ervene in this action because CAA section 304(b)(1)(B) grants them an uncondition al right to intervene, their motion to intervene is timely, and they have a subs tantial interest in the subject

[1] Unless otherwise indicated herein, all of these def endants will be referred to collectively as "Volkswagen."

VW FOIA, EPA 06/20/2017 2017-FFP_037459

matter of this litigation.

Section 304(b)(1)(B) of the CAA states that in any case in which "the Administrator . . . has commenced and is diligently prosecuting a civil action in a court of the United States . . . to require compliance with [a CAA emission] standard, limitation, or order, . . . any person may intervene as a matter of right. *See* CAA § 304(b)(1)(B), 42 U.S.C. § 7604(b)(1)(B). Furthermore, Rule 24(a)(1) of the Federal Rules of Civil Procedure permits "intervention of right" when a party "is given an unconditional right to intervene by a federal statute." Therefore, based on the right bestowed upon Proposed Plaintiff-Intervenors by CAA § 304(b)(1)(B), Proposed Plaintiff-Intervenors have a right to intervene under Rule 24(a)(1).

Additionally, Proposed Plaintiff-Intervenors' request to intervene is clearly timely, given that it is being filed the same day that the United States filed its complaint against Volkswagen. Given the proximity in time within which Volkswagen will receive the government's complaint and Proposed Plaintiff-Intervenors' complaint in intervention, there could hardly be any argument that Volkswagen would be prejudiced by Proposed Plaintiff-Intervenors joining this action. Proposed Plaintiff-Intervenors also sent notice to Volkswagen by letters dated October 9, 2015, and November 5, 2015, so Volkswagen had prior notice of Proposed Plaintiff-Intervenors' intent to sue Volkswagen for its violations of the CAA.

Lastly, Proposed Plaintiff-Intervenors all have an interest in the prosecution of CAA claims against Volkswagen. Proposed Plaintiff-Intervenors Maria Bourn and David Watson are residents of South San Francisco, California. Bourn is a

VW FOIA, EPA 06/20/2017 2017-FFP_037460

lawyer in San Francisco. Watson is a teacher. In 2015, Bourn and Watson, who are married, purchased a certified, pre-owned 2010 Model Year Jetta SportsWagen from Stevens Creek Volkswagen in San Jose, California. Stevens Creek Volkswagen is a Volkswagen Authorized Dealer. Bourn and Watson purchased the SportsWagen in reliance on Volkswagen's representations that the car was an environmentally-friendly "clean diesel" vehicle. They suffer injuries to their aesthetic, recreational, environmental, and/or economic interests as a result of Volkswagen's unlawful emissions of pollutants.

Proposed Plaintiff-Intervenor Mark Schumacher resides in Gainesville, Virginia. In 2012, he purchased a 2012 Model Year Volkswagen Passat SE TDI. Schumacher purchased the Passat from Lindsay Volkswagen in Sterling, Virginia. That company is a Volkswagen Authorized Dealer. Proposed Plaintiff-Intervenor Schumacher purchased the Passat in reliance on Volkswagen's representations that the car was an environmentally-friendly "clean diesel" vehicle. Schumacher suffers injuries to his aesthetic, recreational, environmental, and/or economic interests as a result of Volkswagen's unlawful emissions of pollutants.

Proposed Plaintiff-Intervenor Stephen Verner is an architect and resident of Oakland, California. In 2013, he purchased a TDI Golf four door from Royal Motor Sales in San Francisco, California. Royal Motor Sales is an Authorized Volkswagen Dealer. Verner purchased the Golf in reliance on Volkswagen's representations that the car was an environmentally friendly "clean diesel" vehicle. Verner suffers injuries to his aesthetic, recreational, environmental, and/or economic interests as a result of Volkswagen's unlawful emissions of pollutants.

VW FOIA, EPA 06/20/2017 2017-FFP_037461

Proposed Plaintiff-Intervenor CAS is a non-profit, Section 501(c)(3) public interest organization headquartered in Washington,DC. It was founded by consumer advocate Ralph Nader and Consumers Union in 1970 to provide consumers with a voice for auto safety and to provide information to consumers on how to purchase the best motor vehicle for their needs. CAS has ove r 15,000 members nationwide. CAS is dedicated to promoting automobile and highwa y safety, ensuring that defective and unsafe automobiles and automobile equ ipment are removed from the road, helping make roads safer for motor vehicles through safer designs and traffic, and working for improved fuel efficiency and lower emissions from motor vehicles.

As part of its commitment to improved fuel efficien cy, in 2008, CAS integrated into its programs the Safe Climate Campa ign which aims to fight global warming by promoting laws and regulations that requ ire strict emission standards. The Safe Climate Campaign also pushes automakers to make clean, energy efficient vehicles, and urges consumers to make energy-efficient choices in transportation.

Within the meaning of section 302(e) of the CAA, 42 U.S.C. § 7602(e), CAS is a "person" that may commence a civil action under section 304(a)(1) of the Clean Air Act, 42 U.S.C. § 7604(a)(1). CAS sues on behal f of itself and its individual members who were harmed by Volkswagen's conduct. T he organization and its members are adversely affected by the Volkswagen's vehicles' excess emissions—in violation of the CAA—that have deleterious impac ts on the areas where they live, work, and recreate.

CAS has individual standing as an organization beca use it has been harmed by Volkswagen's wrongful conduct as alleged herein. CAS had devoted

VW FOIA, EPA 06/20/2017 2017-FFP_037462

considerable time and resources encouraging automak ers to sell energy-efficient vehicles and encouraging members to purchase clean, energy-efficient vehicles. As a result of Defendants' unlawful conduct, CAS has h ad to redirect staff time and financial resources away from its planned activitie s. CAS also has associational standing on behalf of its members who have claims a gainst Volkswagen for its violations of the CAA.

Based on the effects that Volkswagen's CAA violat ions have had on Proposed Plaintiff-Intervenors, Proposed Plaintiff- Intervenors have Article III standing to file suit against Volkswagen. Likewise, the adverse effects that Volkswagen's violations have on Proposed Plaintiff- Intervenors justify allowing them to intervene in this action through Fed. R. Ci v. P. 24(a)(1) and CAA § 304(b)(1)(B), 42 U.S.C. § 7604(b)(1)(B).

IV. CONCLUSION

For the reasons set forth herein, Proposed Plaintif f-Intervenors respectfully request that the Court grant this motion and allow Proposed Plaintiff-Intervenors to file the attached Proposed Complaint in Interventio n and fully participate in jointly prosecuting their CAA claims against Volkswagen.

DATED: January 4, 2016

Respectfully submitted,

By: /s/Jaye Quadrozzi

Jaye Quadrozzi (P71646)
Sara MacWilliams (P67805)

VW FOIA, EPA 06/20/2017 2017-FFP_037463

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VW FOIA, EPA 06/20/2017 2017-FFP_037465

CERTIFICATE OF SERVICE

I hereby certify that on January 4, 2016, I electro nically filed the foregoing Motion to Intervene and the attached Exhibits and P roposed Complaint in Intervention with the Clerk of the Court using the ECF system. Additionally, I hereby certify that I have sent by United States Po stal Service and electronic mail the foregoing Notice to the following attorneys for Defendants:

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VW FOIA, EPA 06/20/2017 2017-FFP_037466

INDEX OF EXHIBITS

Exhibit 1: Proposed Complaint in Intervention

Exhibit 2: Proposed Complaint Ex. 1

Exhibit 3: Proposed Complaint Ex. 2

INDEX OF EXHIBITS

Exhibit 1: Proposed Complaint in Intervention

Exhibit 2: Proposed Complaint Ex. 1

Exhibit 3: Proposed Complaint Ex. 2

Exhibit 1

Proposed Complaint in Intervention

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiffs, and MARIA BOURN, DAVID WATSON, STEPHEN VERNER, MARK SCHUMACHER, and THE CENTER FOR AUTO SAFETY, Proposed Plaintiff-Intervenors, v. VOLKSWAGEN AG, AUDI AG, VOLKSWAGEN GROUP OF AMERICA, INC., VOLKSWAGEN GROUP OF AMERICA CHATTANOOGA OPERATIONS, LLC, DR. ING. H.C. F. PORSCHE AG, and PORSCHE CARS NORTH AMERICA, INC., Defendants.	Case No. 2:16-cv-10006 Judge Laurie J. Michelson Magistrate Judge Michael J. Hluchaniuk JURY TRIAL DEMANDED

[PROPOSED] COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF AND FOR CIVIL PENALTIES BY PLAINTIFF-INTERVENORS MARIA BOURN, DAVID WATSON, STEPHEN VERNER, MARK SCHUMACHER, AND THE CENTER FOR AUTO SAFETY

I. INTRODUCTION

1. Plaintiff-Intervenors Maria Bourn, David Watson, Stephen Verner, Mark Schumacher, and the Center for Auto Safety ("CAS") hereby adopt and incorporate by reference the claims alleged by Plaintiff the United States of America in this action. Plaintiff-Intervenors make the following additional allegations and raise the following claims:

2. Plaintiff-Intervenors bring this action to address significant and ongoing violations by Defendants, Volkswagen AG ("VWAG"), Volkswagen Group of America, Inc. ("VWoA"), Volkswagen Group of America Chattanooga Operations, LLC ("VWoA Chattanooga"), Audi AG, and Dr. Ing. h.c. F. Porsche AG and Porsche Cars North America, Inc. (collectively, "Porsche"),[1] of the Clean Air Act ("CAA"), 42 U.S.C. §§ 7401-7671q, and its implementing regulations, and the motor vehicle emissions laws, regulations, and orders of California, Connecticut, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington.

3. On September 18, 2015, the United States Environmental Protection Agency ("EPA") and the California Air Resources Board ("CARB") both notified

[1] Unless otherwise indicated herein, all of these defendants will be referred to collectively as "Volkswagen."

Volkswagen that it had violated federal and state laws and regulations by using a "defeat device"—software specifically intended to circumvent emissions test procedures established by the EPA and by CARB.

4. Since at least 2009, Volkswagen has introduced hundreds of thousands of vehicles that are equipped with defeat devices into the United States, in violation of the CAA.

5. As a result of the defeat devices, Volkswagen's vehicles did not properly comply with the federal Clean Air Act's ("CAA") requirement that all vehicles introduced into the United States obtain EPA-issued Certificates of Conformity ("COCs").

6. Furthermore, through use of the defeat devices, Defendants' vehicles exceeded emission limits on nitrogen oxide by up to 40 times the limit set by federal standards, and exceeded state implementation plans by an even greater amount.

7. Because of these serious violations, this citizen suit seeks declaratory and injunctive relief and the imposition of civil penalties under the CAA.

II. JURISDICTION AND VENUE

8. This Court has subject matter jurisdiction over the CAA claims set forth in this complaint pursuant to 42 U.S.C. § 7604(a) and 28 U.S.C. § 1331. The relief requested is authorized pursuant to 28 U.S.C §§ 2201 and 2202 and 42 U.S.C. §§ 7522 and 7604.

9. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1391(b) and (c), in that at least one of the Defendants resides in this judicial district, is licensed to do business or is doing business in this judicial district.

10. To the extent required by 42 U.S.C. § 7604(b)(1)(A), on October 9,

2015, Plaintiff-Intervenors notified in writing the Administrator of the EPA, the governors and environmental agencies of 17 states, and Volkswagen of the alleged violations set forth in this complaint and Plaintiff-Intervenors' intent to sue Volkswagen as a result of its violations of the CAA. A true and accurate copy of Plaintiff-Intervenors' 60-day notice letter is attached as Exhibit 1 and incorporated by reference herein.

11. Plaintiff-Intervenors sent an additional notice letter on November 5, 2015, which is attached as Exhibit 2.

12. Sixty days have passed since notice was served by United States Mail. Additionally, because Plaintiff has commenced this action under the CAA to redress some of the violations alleged in this complaint, Plaintiff-Intervenors may intervene in this suit as of right pursuant to 42 U.S.C. § 7604(b)(1)(B).

13. The United States has informed Proposed Plaintiff-Intervenors that it does not oppose their intervention.

III. THE PARTIES.

A. Plaintiff-Intervenors

14. Plaintiff-Intervenors Maria Bourn ("Bourn") and David Watson ("Watson") are residents of South San Francisco, California. Bourn is a lawyer in San Francisco. Watson is a teacher. In 2015, Bourn and Watson, who are married, purchased a certified, pre-owned 2010 Model Year Jetta SportsWagen from Stevens Creek Volkswagen in San Jose, California. Stevens Creek Volkswagen is a Volkswagen Authorized Dealer. Plaintiff-Intervenors purchased the SportsWagen in reliance on Volkswagen's representations that the car was an environmentally-friendly "clean diesel" vehicle. Plaintiff-Intervenors suffer injuries to their

aesthetic, recreational, environmental, and/or economic interests as a result of Volkswagen's unlawful emissions of pollutants.

15. Plaintiff-Intervenor Mark Schumacher ("Schumacher") resides in Gainesville, Virginia. In 2012, he purchased a 2012 Model Year Volkswagen Passat SE TDI. Schumacher purchased the Passat from Lindsay Volkswagen in Sterling, Virginia. That company is a Volkswagen Authorized Dealer. Plaintiff-Intervenor Schumacher purchased the Passat in reliance on Volkswagen's representations that the car was an environmentally-friendly "clean diesel" vehicle. Schumacher suffers injuries to his aesthetic, recreational, environmental, and/or economic interests as a result of Volkswagen's unlawful emissions of pollutants.

16. Plaintiff-Intervenor Stephen Verner ("Verner") is an architect and resident of Oakland, California. In 2013, he purchased a TDI Golf four door from Royal Motor Sales in San Francisco, California. Royal Motor Sales is an Authorized Volkswagen Dealer. Verner purchased the Golf in reliance on Volkswagen's representations that the car was an environmentally friendly "clean diesel" vehicle. Verner suffers injuries to his aesthetic, recreational, environmental, and/or economic interests as a result of Volkswagen's unlawful emissions of pollutants.

17. CAS is a non-profit, Section 501(c)(3) public interest organization headquartered in Washington, DC. It was founded by consumer advocate Ralph Nader and Consumers Union in 1970 to provide consumers with a voice for auto safety and to provide information to consumers on how to purchase the best motor vehicle for their needs. CAS has over 15,000 members nationwide. CAS is dedicated to promoting automobile and highway safety, ensuring that defective and unsafe automobiles and automobile equipment are removed from the road, helping make

roads safer for motor vehicles through safer designs and traffic, and working for improved fuel efficiency and lower emissions from motor vehicles.

18. As part of its commitment to improved fuel efficiency, in 2008, CAS integrated into its programs the Safe Climate Campaign which aims to fight global warming by promoting laws and regulations that require strict emission standards. The Safe Climate Campaign also pushes automakers to make clean, energy efficient vehicles, and urges consumers to make energy-efficient choices in transportation.

19. Within the meaning of section 302(e) of the CAA, 42U.S.C. § 7602(e), CAS is a "person" that may commence a civil action under section 304(a)(1) of the Clean Air Act, 42 U.S.C. § 7604(a)(1). CAS sues orbehalf of itself and its individual members who were harmed by Volkswagen's conduct. The organization and its members are adversely affected by the Volkswagen'svehicles' excess emissions—in violation of the CAA—that have deleterious impacts on the areas where they live, work, and recreate.

20. CAS has individual standing as an organization because it has been harmed by Volkswagen's wrongful conduct as alleged herein. CAS had devoted considerable time and resources encouraging automakers to sell energy-efficient vehicles and encouraging members to purchase clean, energy-efficient vehicles. As a result of Defendants' unlawful conduct, CAS has had to redirect staff time and financial resources away from its planned activities.

21. CAS also has associational standing on behalf of its members who have claims against Volkswagen for the violations alleged in this complaint.

B. Defendants

22. Defendant VWAG is a car corporation organized and existing under

German law, with its principal place of business in Wolfsburg, Germany. VWAG is the parent company of Defendants VWoA, Audi, and Porsche.

23. Defendant Audi AG is a car corporation organized and existing under German law, with its principal place of business in Ingolstadt, Germany. It is owned by VWAG. Audi was created when VWAG merged two of its companies, Auto Union and NSU Motorenwerke AG. Audi is a 99.55%-owned subsidiary of VWAG. Audi is now Volkswagen's luxury vehicle brand, and uses the slogan "Truth in Engineering".

24. Defendant Porsche AG is a car corporation organized and existing under German law, with its principal place of business in Stuttgart, Germany. It is a 100%-owned subsidiary of VWAG.

25. Defendant VWoA is a corporation organized and existing under New Jersey law. Its headquarters are in Herndon, Virginia. VWoA is a wholly-owned subsidiary of VWAG. It is one of the world's largest producers of passenger cars. Through Volkswagen of America, Inc., it sells the Beetle, Beetle Convertible, CC, Eos, e-Golf, Golf, Golf GTI, Golf SportWagen, Jetta, Passat, Tiguan, and Touareg vehicles through Volkswagen Authorized Dealers located in the United States. VWoA's operations in the United States include research and development; parts and vehicle processing; parts distribution; sales, marketing, and service offices; financial service centers; and manufacturing.

26. VWoA Chattanooga is a wholly-owned subsidiary of VWoA. VWoA Chattanooga is incorporated under the laws of the State of Tennessee, and is located in Chattanooga, Tennessee.

27. Defendant Porsche Cars North America is a subsidiary of Porsche AG

that sells Porsche vehicles in the United States. Its United States headquarters are in Atlanta, Georgia.

28. Defendants are "persons" within the meaning of section 302(e) of the CAA, 42 U.S.C. § 7602(e), that may be sued under section 304(a)(1) of the Clean Air Act, 42 U.S.C. § 7604(a)(1).

29. Defendants are "manufacturers" within the meaning of section 216(1) of the CAA, 42 U.S.C. § 7550(1).

IV. LEGAL AND FACTUAL ALLEGATIONS.

A. Regulation of Defeat Devices.

30. Congress enacted the CAA and established the EPA in 1970. The objective of the CAA is "to protect and enhance the quality of the nation's air resources so as to promote the public health and welfare and the productive capacity of its population." CAA § 101(b), 42 U.S.C. § 7401(b).

31. The CAA requires vehicle manufacturers to certify to EPA that their cars and trucks will meet applicable federal emission standards. EPA administers a certification program to ensure that every vehicle complies with its emission standards. EPA-issued COCs are required for every vehicle sold in the United States, and EPA must approve every vehicle entering United States commerce. Manufacturers are prohibited from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing, any new motor vehicle unless that vehicle is covered by an EPA-issued COC. CAA § 203(a)(1), 42 U.S.C. § 7522(a)(1); 40 C.F.R. § 86.1854-12(a)(l).

32. Vehicles can be covered by COCs "only if they are in all material

respects as described in the manufacturer's application for certification." 40 C.F.R. § 86.1848-10(c)(6). Similarly, a COC issued by EPA states expressly, "[t]his certificate covers only those new motor vehicles or vehicle engines which conform, in all material respects, to the design specifications" described in the application for that COC.

33. An application for a COC must include, among other things, a list of all auxiliary emission control devices ("AECDs") installed on the vehicle. 40 C.F.R. § 86.1844-01(d)(11). An AECD is "any element of design which senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.1803-01.

34. The COC application must also include "a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device." 40 C.F.R. § 86.1844-01(d)(11).

35. An AECD is considered to be a "defeat device" if it "reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles." 40 C.F.R. § 86.1803-01.

36. The use of defeat devices is illegal under the CAA, which prohibits the manufacture, selling, or installation of any device that bypasses, defeats, or renders

inoperative a required element of a vehicle's emiss ions control system. CAA § 203(a)(3)(b), 42 U.S.C. § 7522(a)(3)(b). The CAA r egulations also state that new light-duty vehicles are prohibited from being equip ped with defeat devices. 40 C.F.R. §§ 86.1809-01, 86.1809-10, 86.1809-12.

B. Emission Standards.

37. In addition to regulating defeat devices and requir ing COCs, the CAA imposes emission limitations for various air pollut ants. Among these standards is the limitation on emissions of nitrogen oxide (" NOx "), set by section 202 of the CAA, 42 U.S.C. § 7521, and 40 CFR 86.1811-04. Thes e provisions impose a limitation of 0.07 grams of NOx per mile for the Affected Vehicles.

38. Under section 222(a)(1) of the CAA, 42 U.S.C. § 754 1(a)(1), a manufacturer must warrant that its vehicles meet th e emission standards set by section 202 of the CAA, 42 U.S.C. § 7521. A failur e to comply with that warranty constitutes a violation of section 203(a)(4)(D) of the CAA, 42 U.S.C. § 7522(a)(4)(D).

39. Additionally, CARB has established emission standards for NOx. The relevant California standards are found in Cal. Cod e Regs. tit. 13, §§ 1961, 1961.2. The CARB standards limit NOx emissions to 0.05 gram s per mile. EPA approved the CARB standards through section 209 of the CAA, 42 U.S.C. § 7543.

40. The CARB standards have also been adopted in the following states:

- Connecticut: Conn. Gen. Stat. § 22a-174g; Conn. Agencies Regs. 22a-174-36, 22a-174-36b, 22a-174-36c;
- Maine: Me. Rev. Stat. tit. 38, §§ 585, 585-A, 585-D; Code Me. R. tit.

06-096 Ch. 127, §§ 3-4;

- Maryland: Md. Code, Envir. § 2-1103; Md. Code Regs. 26.11.34.05;
- Massachusetts: Mass. Gen. Laws ch. 111, § 142K; 310 Mass. Code Regs. 7.40;
- New Jersey: N.J. Stat. § 26:2C-8.17; N.J. Admin. Code § 7:27-29.4;
- New York: N.Y. Envt'l Conserv. Law § 19-0301; N.Y. Comp. Codes R. & Regs. tit. 6, § 218-2.1;
- Oregon: Or. Rev. Stat. § 184.889; Or. Admin. R. 340-257-0040, 340-257-0050;
- Pennsylvania: 25 Pa. Code §§ 121.1, 126.412;
- Rhode Island: 23 R.I. Gen. Laws § 23-23-5; R.I. Code R. 25-4-37:37.3;
- Vermont: Vt. Stat. tit. 10, § 567; 16-3 Vt. Code R. § 100:5-1102, 100:5-1103; 16-3 Vt. Code R. § 100 App'x F; and
- Washington: Wash. Rev. Code §§ 70.94.040, 70.120A.010; Wash. Admin. Code 173-423-050(1).

41. EPA approved adoption of the CARB standards in the above states through section 177 of the CAA, 42 U.S.C. § 7507.

C. Volkswagen's Violations.

42. Volkswagen violated these statutes by installing de feat devices on the emission control systems for at least the following Volkswagen, and Audi vehicles with diesel engines sold in the United States ("the Affected Vehicles"):

- VW Jetta TDI (Model Years 2009-15);
- VW Jetta SportWagen TDI (Model Years 2009-14);
- VW Golf TDI (Model Years 2010-15);
- VW Golf SportWagen TDI (Model Year 2015);
- VW Beetle TDI and VW Beetle Convertible TDI (Model Years 2012-15);
- VW Passat TDI (Model Years 2012-15);
- Audi A3 TDI (Model Years 2010-15);
- VW Toureg (Model Years 2014-15);
- Porsche Cayenne A3 TDI (Model Years 2014-16);
- Audi A6 Quattro (Model Years 2015-16);
- Audi A7 Quattro (Model Years 2015-16);
- Audi A8 and A8 L (Model Years 2015-16);
- Audi Q5 (Model Years 2015-16).

43. Volkswagen has already widely acknowledged the use of defeat devices in the Affected Vehicles. Michael Horn, the President and CEO of VWoA, admitted that the defeat devices was installed in approximately 525,000 vehicles in the United States. Volkswagen executives at the highest level of the company were aware of

these emissions violations and these individuals authorized concealment through the use of a sophisticated software code that understood when an engine was being subjected to an emissions test. The software then altered engine settings to allow the vehicle to pass the emissions test. Thereafter, the engine would revert to normal settings for real-world driving conditions.

44. Volkswagen's defeat device is described as a "sophisticated software algorithm" that detects when the car is undergoing emissions testing. The algorithm used information about how the car was being steered, how long the engine ran and atmospheric pressure to "precisely track" the conditions that corresponded to a federal emissions test, according to the EPA. During emissions testing, the software "turns on" the car's full emissions control system in order to pass the test. Under normal driving situations, however, these emissions control systems are ***turned off***, allowing the cars to spew as much as 40 times the allowable amount of NOx into the air.

45. By using defeat devices in the Affected Vehicles, Volkswagen violated section 203(a)(3)(b) of the CAA, 42 U.S.C. § 7522(a)(3)(b), and 40 C.F.R. §§ 86-1809-01, 86-1809-10, 86-1809-12.

46. Volkswagen did not disclose the existence of defeat devices in its applications for COCs for the Affected Vehicles. Therefore, the vehicles did not comply with their COCs, in violation of section 203 (a)(1) of the CAA, 42 U.S.C. § 7522(a)(1).

47. Because Volkswagen was using defeat devices, the emissions of the Affected Vehicles exceeded federal emissions standards for NOx by 9 to 40 times. The NOx emissions exceeded the CARB standards by even greater amounts. Over

the course of the seven years the Affected Vehicleswere in use, they spewed enough NOx to significantly degrade the environment in urban areas.

48. Because the Affected Vehicles violated the NOx emis sions standards set by section 202 of the CAA, 42 U.S.C. § 7521, th e Affected Vehicles were not compliant with the warranties required by section 2 22(a)(1) of the CAA, 42 U.S.C. § 7541(a)(1). A failure to comply with that warranty constitutes a violation of section 203(a)(4)(D) of the CAA, 42 U.S.C. § 7522(a)(4)(D).

49. Until Volkswagen is made to remedy the deficiencies in the Affected Vehicles, Volkswagen will continue to be in violati on of sections 203(a)(1), 203(a)(3)(b), and 203(a)(4)(D) of the CAA, 42 U.S.C. §§ 7522(a)(1), 7522(a)(3)(b), 7522(a)(4)(D), and the vehicles will continue to spew NOx far in excess of state and federal standards.

V. CAUSES OF ACTION

FIRST CLAIM

Use of Defeat Devices in Violation of CAA § 203(a)(3)(b), 42 U.S.C. § 7522(a)(3)(b)

50. Plaintiff-Intervenors incorporate by reference each preceding and succeeding paragraph.

51. Volkswagen equipped hundreds of thousands of Affected Vehicles with defeat devices in violation of section 203(a)(3)(b) of the CAA, 42 U.S.C. § 7522(a)(3)(b), and 40 C.F.R. §§ 86-1809-01, 86-1809-10, 86-1809-12.

52. Persons who violate section 203(a)(3)(B) of the CAA , 42 U.S.C. § 7522(a)(3)(B), are subject to a civil penalty of up to $3,750 for each violation that

occurred on or after January 13, 2009. [2] CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4. The Court can also impose additional equitable remedies under section 204(a) of the CAA, 42 U.S.C. § 7523(a), to further address these violations.

53. Plaintiff-Intervenors can file suit for these violations under section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), because violations of 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B), constitutes violations of "an emission standard or limitation under" the CAA, which is defined to include any "schedule or timetable of compliance, emission limitation, standard of performance or emission standard." CAA § 304(f)(1), 42 U.S.C. § 7604(f)(1).

54. Volkswagen has already admitted that it equipped 52 5,000 vehicles with defeat devices in violation of section 203(a)(3)(b) of the CAA, 42 U.S.C. § 7522(a)(3)(b).

55. Because the majority of the Affected Vehicles remain in use, Volkswagen's violations of section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B), and, by extension, violations of section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), continue through the date of the filing of this Complaint.

SECOND CLAIM
Noncompliance with Certificates of Conformity in Violation of CAA § 203(a)(1), 42 U.S.C. § 7522(a)(1)

56. Plaintiff-Intervenors incorporate by reference each preceding and succeeding paragraph.

57. Because Volkswagen equipped the Affected Vehicles with defeat devices, the Affected Vehicles were not properly covered by EPA-issued COCs. By

[2] $2,750 for violations occurring prior to January 13, 2009.

distributing vehicles that were not covered by COCs , Defendants violated section 203(a)(1) of the CAA, 42 U.S.C. § 7522(a)(1), and 40 C.F.R. § 86.1854-12(a)(l).

58. Persons who violate section 203(a)(1) of the CAA, 4 2 U.S.C. § 7522(a)(1), are subject to a civil penalty of up to $37,500 for each violation that occurred on or after January 13, 2009. [3] CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4. The Court can also impose additiona l equitable remedies under section 204(a) of the CAA, 42 U.S.C. § 7523(a), to further address these violations.

59. Plaintiff-Intervenors can file suit for these viola tions under section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), because violations of section 203(a)(1) of the CAA, 42 U.S.C. § 7522(a)(1), constitute violations of "an emission standard or limitation under" the CAA, which is def ined to include any "schedule or timetable of compliance, emission limitation, standard of performance or emission standard." CAA § 304(f)(1), 42 U.S.C. § 7604(f)(1).

60. Volkswagen has already admitted that it equipped 52 5,000 vehicles with defeat devices, meaning that the vehicles coul d not be covered by the EPA-issued COCs, in violation of section 203(a)(1) of the CAA, 42 U.S.C. § 7522(a)(1).

61. Because the majority of the Affected Vehicles remai n on the road, Volkswagen's violations of section 203(a)(1) of the CAA, 42 U.S.C. § 7522(a)(1), and, by extension, violations of section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), continue through the date of the filing of this Complaint.

THIRD CLAIM
Violations of Federal NOx Emission Standards in CAA § 202 of the CAA, 42 U.S.C. § 7521

[3] $32,500 for violations occurring prior to January 13, 2009.

VW FOIA, EPA 06/20/2017 2017-FFP_037485

62. Plaintiff-Intervenors incorporate by reference each preceding and succeeding paragraph.

63. The CAA imposes an emission limitation of 0.07 grams of NOx per mile for the Affected Vehicles, set by section 202 of the CAA, 42 U.S.C. § 7521, and 40 CFR 86.1811-04.

64. EPA has stated that the Affected Vehicles exceed this standard by 9 to 40 times, depending on the vehicle and the driving conditions (*i.e.*, city vs. highway).

65. Plaintiff-Intervenors can file suit for these violations under section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), because violations of the emissions standard set by section 202 of the CAA, 42 U.S.C. § 7521, constitutes violations of "an emission standard or limitation under" the CAA, which is defined to include "any a schedule or timetable of compliance, emission limitation, standard of performance or emission standard." CAA § 304(f)(1), 42 U.S.C. § 7604(f)(1).

66. Volkswagen has already admitted that the Affected Vehicles were equipped with defeat devices, causing them to spew excess emissions in violation of section 202 of the CAA, 42 U.S.C. § 7521.

67. Because the majority of the Affected Vehicles remain in use, Volkswagen's violations of section 202 of the CAA, 42 U.S.C. § 7521, and, by extension, violations of section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), continue through the date of the filing of this Complaint.

FOURTH CLAIM
Noncompliance with Emissions Warranties in Violation CAA § 203(a)(4)(D), 42 U.S.C. § 7522(a)(4)(D)

68. Plaintiff-Intervenors incorporate by reference each preceding and succeeding paragraph.

69. Because Volkswagen's Affected Vehicles violated the NOx emissions standards set by section 202 of the CAA, 42 U.S.C. § 7521, the Affected Vehicles were not compliant with the warranties required bysection 222(a)(1) of the CAA, 42 U.S.C. § 7541(a)(1). A failure to comply with that warranty constitutes a violation of section 203(a)(4)(D) of the CAA, 42 U.S.C. § 7522(a)(4)(D).

70. Persons who violate section 203(a)(4)(D) of the CAA , 42 U.S.C. § 7522(a)(1), are subject to a civil penalty of up to $37,500 for each violation that occurred on or after January 13, 2009. [4] CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4. The Court can also impose additiona l equitable remedies under section 204(a) of the CAA, 42 U.S.C. § 7523(a), to further address these violations.

71. Plaintiff-Intervenors can file suit for these viola tion under section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), because violations of 203(a)(4)(D) of the CAA, 42 U.S.C. § 7522(a)(4)(D), constitutes violations of "an emission standard or limitation under" the CAA, whi ch is defined to include any "schedule or timetable of compliance, emission limitation, standard of performance or emission standard." CAA § 304(f)(1), 42 U.S.C. § 7604(f)(1).

72. Volkswagen has already admitted that the Affected V ehicles were equipped with defeat devices, causing them to spew excess emissions in violation of section 202 of the CAA, 42 U.S.C. § 7521, meaning t hat the Affected Vehicles did not comply with the warranties issued under section 222(a)(1) of the CAA, 42

[4] $32,500 for violations occurring prior to January 13, 2009.

U.S.C. § 7541(a)(1), thus constituting a violation of section 203(a)(4)(D) of the CAA, 42 U.S.C. § 7522(a)(4)(D).

73. Because the majority of the Affected Vehicles remain in use, Volkswagen's violations of section 203(a)(4)(D) of the CAA, 42 U.S.C. § 7522(a)(4)(D), and, by extension, violations of section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), continue through the date of the filing of this Complaint.

FIFTH CLAIM
Violations of CARB NOx Emission Standards in Cal. Code Regs. tit. 13, §§ 1961, 1961.2 And Other Adopting States

74. Plaintiff-Intervenors incorporate by reference each preceding and succeeding paragraph.

75. The emissions of the Affected Vehicles exceed the NOx emission standards set by CARB in Cal. Code Regs. tit. 13, § § 1961, 1961.2, which limit NOx emissions to 0.05 grams per mile.

76. The CARB standards have also been adopted in the following states:

- Connecticut: Conn. Gen. Stat. § 22a-174g; Conn. Agencies Regs. 22a-174-36, 22a-174-36b, 22a-174-36c;
- Maine: Me. Rev. Stat. tit. 38, §§ 585, 585-A, 585-D; Code Me. R. tit. 06-096 Ch. 127, §§ 3-4;
- Maryland: Md. Code, Envir. § 2-1103; Md. Code Regs. 26.11.34.05;
- Massachusetts: Mass. Gen. Laws ch. 111, § 142K; 310 Mass. Code Regs. 7.40;

VW FOIA, EPA 06/20/2017 2017-FFP_037488

- New Jersey: N.J. Stat. § 26:2C-8.17; N.J. Admin. Code § 7:27-29.4;
- New York: N.Y. Envt'l Conserv. Law § 19-0301; N.Y. Comp. Codes R. & Regs. tit. 6, § 218-2.1;
- Oregon: Or. Rev. Stat. § 184.889; Or. Admin. R. 340-257-0040, 340-257-0050;
- Pennsylvania: 25 Pa. Code §§ 121.1, 126.412;
- Rhode Island: 23 R.I. Gen. Laws § 23-23-5; R.I. Code R. 25-4-37:37.3;
- Vermont: Vt. Stat. tit. 10, § 567; 16-3 Vt. Code R. § 100:5-1102, 100:5-1103; 16-3 Vt. Code R. § 100 App'x F; and
- Washington: Wash. Rev. Code §§ 70.94.040, 70.120A.010; Wash. Admin. Code 173-423-050(1).

77. Because the CARB standards are stricter than the federal standards, Volkswagen is violating the emission standards of these states by even greater amounts than their violations of the federal standards.

78. Plaintiff-Intervenors can file suit for these violations under section 304 of the CAA, 42 U.S.C. § 7604, because the CAA defines "an emission standard or limitation under" the CAA to include any "standard, limitation, or schedule established under . . . any applicable State implementation plan approved by the Administrator." CAA § 304(f)(4), 42 U.S.C. § 7604(f)(4). The CARB standards were approved for California by the Administrator through section 209 of the CAA, 42 U.S.C. § 7543, and other states were permitted to adopt the CARB standards under section 177 of the CAA, 42 U.S.C. § 7507. Therefore, 42 U.S.C. § 7604

permits Plaintiff-Intervenors to sue for violations of not only the federal NOx emissions standard, but also violations of the CARB standards throughout the states that have adopted those standards.

79. Volkswagen has already admitted that the Affected Vehicles were equipped with defeat devices, causing them to spew excess emissions in violation of the CARB standards in California, Connecticut, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington.

80. Because the majority of the Affected Vehicles remain in use, Volkswagen's violations of the CARB standards in these states, and, by extension, violations of section 304(a)(1)(A) of the CAA, 42 U.S.C. § 7604(a)(1)(A), continue through the date of the filing of this Complaint.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff-Intervenors pray that the Court enter judgment on their behalf and on behalf of their members, and:

A. DECLARE that Volkswagen has violated and continues to violate the CAA's prohibition on the use of defeat devices;

B. DECLARE that Volkswagen has violated and continues to violate the CAA's requirement that all vehicles be covered by valid COCs;

C. DECLARE that Volkswagen has violated and continues to violate the federal standards for NOx emissions;

D. DECLARE that Volkswagen has violated and continues to violate the CARB standards for NOx emissions;

E. ISSUE A PERMANENT INJUNCTION requiring Volkswagen to take

promptly all measures necessary to bring the Affected Vehicles into compliance with the CAA and CARB emission standards;

F. ORDER Volkswagen to pay a civil penalty pursuant to sections 203(a)(1), 203(a)(3), and 304(a) of the CAA, 42 U.S .C. §§ 7222(a)(1), 7222(a)(3), and 7604(a).

G. ORDER Volkswagen to pay to Plaintiff-Intervenors th eir costs of litigation, including but not limited to reasonable attorney and expert witness fees, as authorized in section 304(d) of the CAA, 42 U.S.C. § 7604(d).

H. ORDER such other relief as the Court deems necessary and proper.

DATED: January 4, 2016 Respectfully submitted,

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IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiffs, and MARIA BOURN, DAVID WATSON, STEPHEN VERNER, MARK SCHUMACHER, and THE CENTER FOR AUTO SAFETY, Proposed Plaintiff-Intervenors, v. VOLKSWAGEN AG, AUDI AG, VOLKSWAGEN GROUP OF AMERICA, INC., VOLKSWAGEN GROUP OF AMERICA CHATTANOOGA OPERATIONS, LLC, DR. ING. H.C. F. PORSCHE AG, and PORSCHE CARS NORTH AMERICA, INC., Defendants.	Case No. 2:16-cv-10006 Judge Laurie J. Michelson Magistrate Judge Michael J. Hluchaniuk JURY TRIAL DEMANDED

JURY DEMAND

Plaintiff demands a jury on all issues so triable.

DATED: January 4, 2016 Respectfully submitted,

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VW FOIA, EPA 06/20/2017 2017-FFP_037496

Exhibit 2

First Exhibit to Proposed Complaint in Intervention

EXHIBIT 1

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October 9, 2015

VIA CERTIFIED U.S. MAIL

Ex. 7

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Ex. 7

Ex. 7

Richard Snyder
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Ex. 7

Ex. 7

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VW FOIA, EPA 06/20/2017 2017-FFP_037499

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Office Of The Administrator, Mail Code
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Washington, DC 20460

Muriel Bower Mayor of Washington, DC
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VW FOIA, EPA 06/20/2017 2017-FFP_037500

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VW FOIA, EPA 06/20/2017 2017-FFP_037501

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Gina M. Raimondo
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General Counsel
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Peter Shumlin
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VW FOIA, EPA 06/20/2017 2017-FFP_037502

HAUSFELD

General Counsel
Washington Department of Ecology
300 Desmond Drive SE,
Lacey, WA 98503

RE: ***VW Emissions Violations; Notice of Intent to Sue.***

Dear Sir or Madame:

Pursuant to 42 U.S.C. § 7604(b), we write to notify you that Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen of America, Inc., and Audi of America, Inc. (collectively "VW") are alleged to have violated the Clean Air Act ("CAA"), 42 U.S.C. §§ 7401 - 7671q, and its implementing regulations, and the motor vehicle emissions laws, regulations and orders of California, Arizona, Connecticut, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington by installing "defeat devices" on its emissions control systems for at least the following Volkswagen and Audi vehicles sold in the United States:

- VW Jetta TDI (Model Years 2009-15);
- VW Jetta SportWagen TDI (Model Years 2009-14);
- VW Golf TDI (Model Years 2010-15);
- VW Golf SportWagen TDI (Model Year 2015);
- VW Beetle TDI and VW Beetle Convertible TDI (Model Years 2012-15);
- VW Passat TDI (Model Years 2012-15); and
- Audi A3 TDI (Model Years 2010-15).

The defeat devices masked real world NOx emissions that exceeded emissions levels authorized by the U.S. Environmental Protection Agency limits by 10 to 40 times.

VW has widely admitted to its violation of E.P.A. and California Air Resources Board

VW FOIA, EPA 06/20/2017 2017-FFP_037503

rules and regulations (which have been adopted in 13 states), and to its deception of state and federal regulators. On October 8, 2016, VW additionally publicly announced that some or all of its SCR engines may also be non-compliant with state and federal regulations. VW executives at the highest level of the company were aware of these emissions violations and these individuals authorized concealment through the use of a sophisticated software code that understood when an engine was being subjected to an emissions test. The software then altered engine settings to allow the vehicle to pass the emissions test. Thereafter, the engine would revert to normal settings for real-world driving conditions.

The CAA makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use."' CAA § 203(a)(3)(B), 42 U.S.C. § 7522(a)(3)(B); 40 C.F.R. § 86. 1854-12(a)(3)(ii). Additionally, manufacturers are prohibited from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing, any new motor vehicle unless that vehicle is covered by an EPA-issued Certificate of Conformity ("COC"). CAA § 203(a)(1), 42 U.S.C. § 7522(a)(1); 40 C.F.R. § 86. 1854-1 2(a)(l). It is also a violation to cause any of the foregoing acts. CAA § 203(a), 42 U.S.C. § 7522(a); 40 C.F.R. § 86-1854- 12(a).

"Vehicles are covered by a certificate of conformity only if they are in all material respects as described in the manufacturer's application for certification . . . ." 40 C.F.R. § 86.1848-1 O(c)(6). Similarly, a COC issued by EPA, including those issued to VW, state expressly, "[t]his certificate covers only those new motor vehicles or vehicle engines which conform, in all material respects, to the design specifications" described in the application for that COC. *See also* 40 C.F.R. §§ 86. 1844-01 (listing required content for COC applications), 86.1848-0 l (b) (authorizing the EPA to issue COCs on any terms that are necessary or appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

Motor vehicles equipped with defeat devices, such as those at issue here, cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86-1809-01, 86- 1809-10, 86-1809-1 2. Electronic control systems which may receive inputs from multiple sensors and control multiple actuators that affect the emission control system's performance are AECDs. EPA, *Advisaty Circular*

Number 24-2: Prohibition of Emission Control Defeat Devices - Optional Objective Criteria (Dec. 6, 1978). "Such elements of design could be control system logic (i.e., computer software), and/or calibrations, and/or hardware items." *Id.*

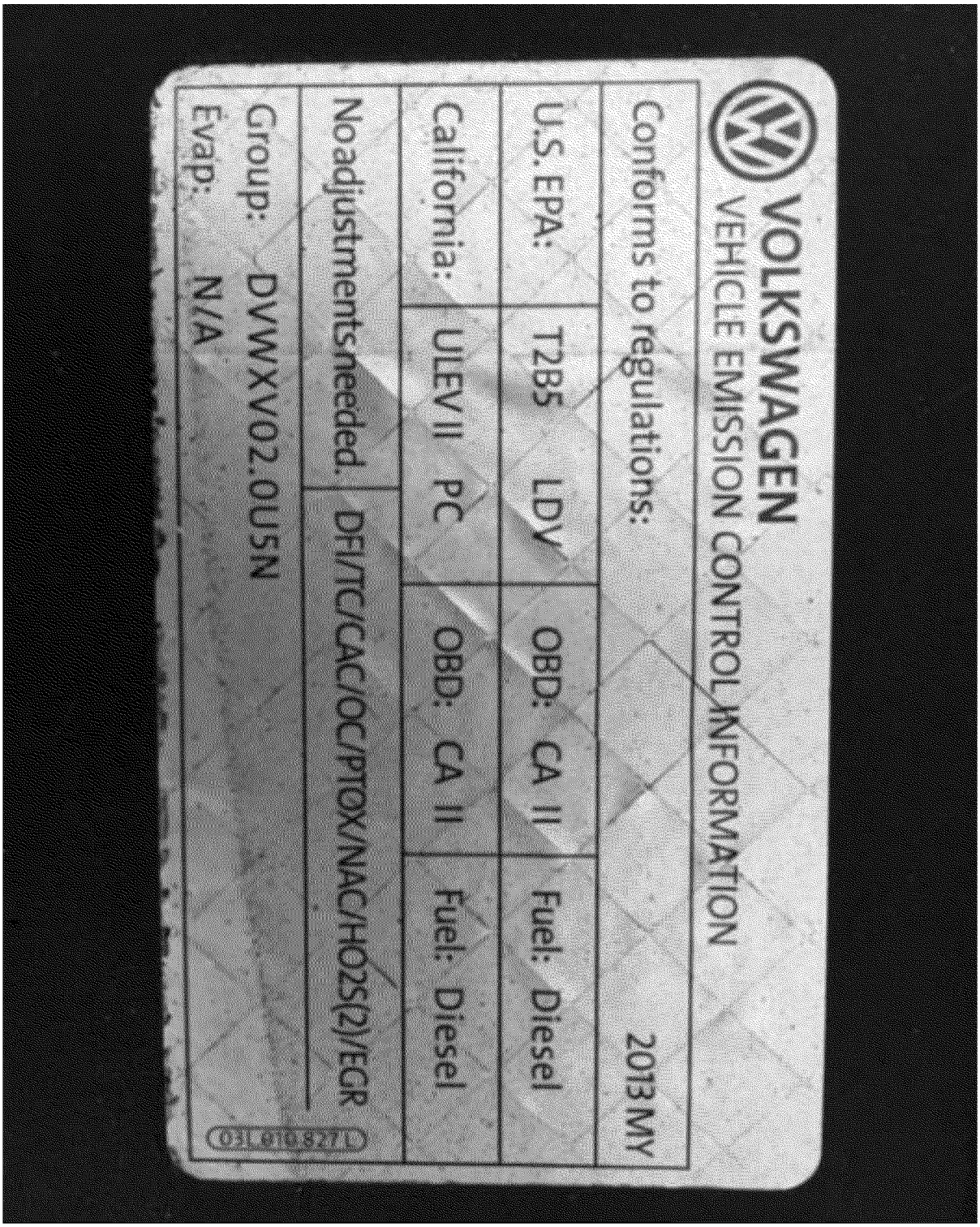
To obtain a COC, a light-duty vehicle manufacturer must submit a COC application to the EPA for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R.
§ 86.1 843-0 1. The COC application must include, among other things, a list of all auxiliary emission control devices (AECDs) installed on the vehicles. 40 C.F.R. § 86. 1844-01 (d)(11). An AECD is "any element of design which senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86. 1803-01. The COC application must also include "ajustification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device." 40 C. F .R. § 86. 1844-01 (d)(11). A defeat device is an AECD " that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . ... " 40 C.F.R. § 86. 1803-01.

Persons who violate section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B), are subject to a civil penalty of up to $3,750 for each violation that occurred on or after January 13, 2009;[1] CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4. In addition, any manufacturer who, on or after January 13, 2009, sold, offered for sale, introduced into commerce, delivered for introduction into commerce, imported, or caused any of the foregoing acts with respect to any new motor vehicle that was not covered by an EPA-issued COC is subject, among other things, to a civil penalty of up to $37,500 for each violation.[2] CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4. Additional equitable remedies to further address these alleged violations are also authorized. CAA § 204(a). 42 U.S.C. § 7523(a).

VW's certifications, which are affixed to hundreds of thousands of non-compliant vehicles are false. An exemplar of these certifications is as follows:

[1] $2.750 for violations occurring prior to January 13. 2009.
[2] $32,500 for violations occurring prior to January 13, 2009.

HAUSFELD


VOLKSWAGEN
VEHICLE EMISSION CONTROL INFORMATION
Conforms to regulations:
2013 MY
U.S. EPA:
T2B5
LDV
OBD: CA II
Fuel: Diesel
California:
ULEV II
PC
OBD: CA II
Fuel: Diesel
No adjustments needed.
DFI/TC/CAC/OC/PTOX/NAC/HO2S(2)/EGR
Group: DVWXV02.0U5N
Evap:
N/A

VW's conduct has contributed to significant degradation of air quality in urban environments and has been estimated to have contributed to respiratory and other health problems and death of dozens of people in the United States over the last seven years. On October 3, Associated Press ("AP") laid out the facts in the chart that follows:

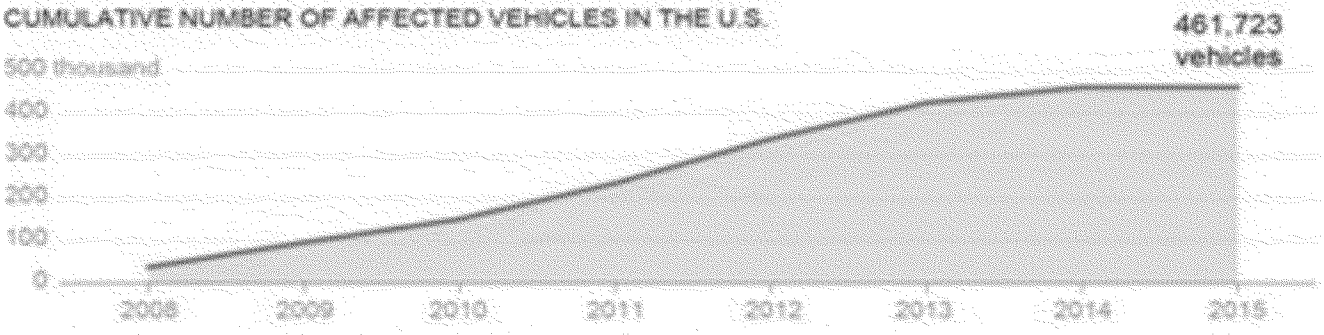
HAUSFELD

PAGE 10
October 9, 2015

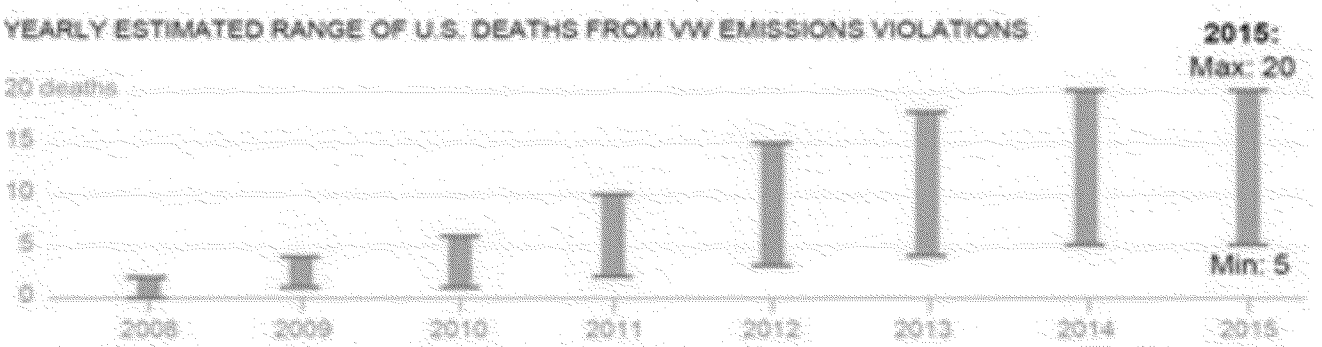
Calculating human toll of VW emissions problems

U.S. pollution resulting from Volkswagen's dodging of emissions tests is enough to have caused dozens of deaths since 2008. An AP analysis calculated upper and lower limits of pollution using the number of affected vehicles each year and average mileage. Scientists used that data in epidemiological computer models to estimate a range of deaths.

CUMULATIVE NUMBER OF AFFECTED VEHICLES IN THE U.S.

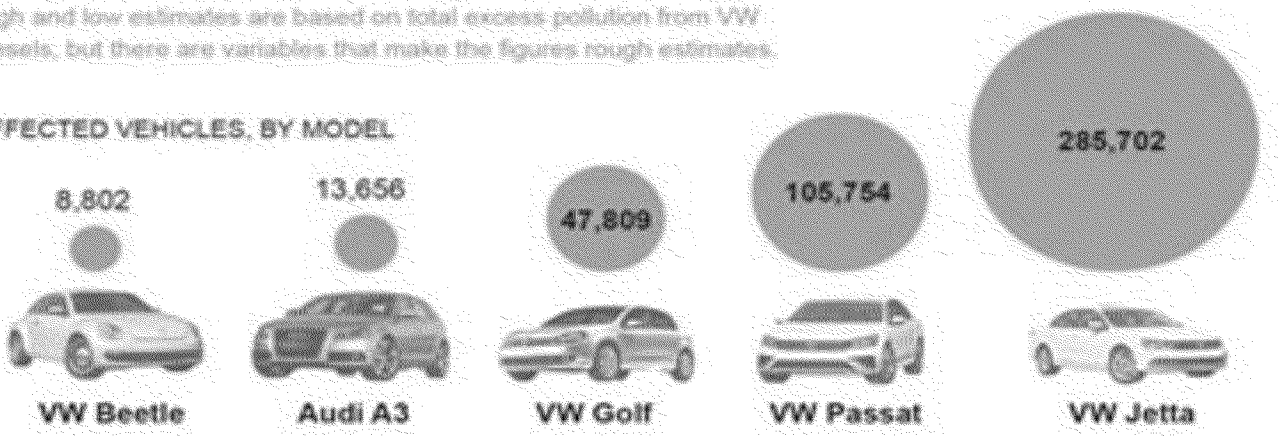


YEARLY ESTIMATED RANGE OF U.S. DEATHS FROM VW EMISSIONS VIOLATIONS



High and low estimates are based on total excess pollution from VW diesels, but there are variables that make the figures rough estimates.

AFFECTED VEHICLES, BY MODEL



NOTE: The total of 47,809 for VW Golf includes 3,530 VW Golf Sportswagen vehicles. The total figure of 461,723 is derived from Kelley Blue Book vehicle registration data. The Environmental Protection Agency estimates the total number of affected vehicles in the U.S. to be about 482,000.

SOURCES: AP analysis of data from the U.S. Environmental Protection Agency and Kelley Blue Book; AP Professor Peter Adams, Carnegie Mellon; Volkswagen; Audi

HAUSFELD

[redacted]

As the AP article notes, the Class Vehicles released enough NOx over the course of seven years to significantly degrade the environment in urban areas.

The full name and contact of the parties giving notice are as follows: Maria Bourn, David Watson, Stephen Verner, Mark Schumacher and the Center for Auto Safety, each of whom may be contacted through their counsel, Hausfeld LLP, 600 Montgomery Street, 32nd Floor, San Francisco, CA 94111 (Tel.: 415-633-1908).

The parties give you notice of their intent to sue the VW entities identified above pursuant to 42 U.S.C. § 7604(a)(1) sixty days following the date of this notice in the United States District Court for the Eastern District of Virginia. Notice is deemed given on the postmark date. See 40 C.F.R. § 54.2(d)

If you believe that any portion of this notice is provided in error, or if you wish to discuss any portion of this notice, please do not hesitate to contact me.

Very truly yours,

Christopher L. Lebsock
Partner

VW FOIA, EPA 06/20/2017 2017-FFP_037509

Exhibit 3

Second Exhibit to Proposed Complaint in Intervention

EXHIBIT 2

HAUSFELD

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November 5, 2015

VIA CERTIFIED U.S. MAIL

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Ex. 7

Ex. 7

Ex. 7

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VW FOIA, EPA 06/20/2017 2017-FFP_037514

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General Counsel
Vermont Department of Environmental Conservation
1 National Life Drive, Main 2
Montpelier, VT 05620-3520

Peter Shumlin
Governor of Vermont
109 State Street, Pavilion
Montpelier, VT 05609

RE: ***VW Emissions Violations; Notice of Intent to Sue.***

Dear Sir or Madame:

Pursuant to 42 U.S.C. § 7604(b), we write to notify you that Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen of America, Inc., Porsche Cars North America, Inc., and Audi of America, Inc. (collectively "VW") are alleged to have violated the Clean Air Act ("CAA"), 42 U.S.C. §§ 7401 - 7671q, and its implementing regulations, and the motor vehicle emissions laws, regulations and orders of California, Arizona, Connecticut, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington by installing "defeat devices" on its emissions control systems for at least the following Volkswagen, Porsche, and Audi vehicles with diesel engines sold in the United States:

- VW Jetta TDI (Model Years 2009-15);
- VW Jetta SportWagen TDI (Model Years 2009-14);

- VW Golf TDI (Model Years 2010-15);
- VW Golf SportWagen TDI (Model Year 2015);
- VW Beetle TDI and VW Beetle Convertible TDI (Model Years 2012-15);
- VW Passat TDI (Model Years 2012-15);
- Audi A3 TDI (Model Years 2010-15);
- VW Toureg (Model Years 2014-15);
- Porsche Cayenne (Model Years 2014-2016);
- Audi A6 Quattro, A7 Quattro, A8, A8L, and Q5 (Model Years 2015-16).

The defeat devices masked real world NOx emissions that exceeded emissions levels authorized by the U.S. Environmental Protection Agency limits by 9 to 40 times.

VW has widely admitted to its violation of E.P.A. and California Air Resources Board rules and regulations (which have been adopted in 13 states), and to its deception of state and federal regulators. On October 8, 2016, VW additionally publicly announced that some or all of its SCR engines may be non-compliant with state and federal regulations. On November 2, 2015, the United States Environmental Protection Agency issued a notice of violation regarding a portion of these vehicles and VW immediately imposed a sales ban on all late-model vehicles with 3.0 liter diesel engines in the United States. VW executives at the highest level of the company were aware of these emissions violations and these individuals authorized concealment through the use of a sophisticated software code that understood when an engine was being subjected to an emissions test. The software then altered engine settings to allow the vehicle to pass the emissions test. Thereafter, the engine would revert to normal settings for real-world driving conditions.

The CAA makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or

should know that such part or component is being offered for sale or installed for such use or put to such use.'" CAA § 203(a)(3)(B), 42 U.S.C. § 7522(a)(3)(B); 40 C.F.R. § 86. 1854-12(a)(3)(ii). Additionally, manufacturers are prohibited from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing, any new motor vehicle unless that vehicle is covered by an EPA-issued Certificate of Conformity ("COC"). CAA § 203(a)(1), 42 U.S.C. § 7522(a)(1); 40 C.F.R. § 86. 1854-1 2(a)(l). It is also a violation to cause any of the foregoing acts. CAA § 203(a), 42 U.S.C. § 7522(a); 40 C.F.R. § 86-1854- 12(a).

"Vehicles are covered by a certificate of conformity only if they are in all material respects as described in the manufacturer's application for certification . . . ." 40 C.F.R. § 86.1848-10(c)(6). Similarly, a COC issued by EPA, including those issued to VW, state expressly, "[t]his certificate covers only those new motor vehicles or vehicle engines which conform, in all material respects, to the design specifications" described in the application for that COC. *See also* 40 C.F.R. §§ 86. 1844-01 (listing required content for COC applications), 86.1848-0 l (b) (authorizing the EPA to issue COCs on any terms that are necessary or appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

Motor vehicles equipped with defeat devices, such as those at issue here, cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86-1809-01, 86- 1809-10, 86-1809-1 2. Electronic control systems which may receive inputs from multiple sensors and control multiple actuators that affect the emission control system's performance are AECDs. EPA, *Advisaty Circular Number 24-2: Prohibition of Emission Control Defeat Devices - Optional Objective Criteria* (Dec. 6, 1978). "Such elements of design could be control system logic (i.e., computer software), and/or calibrations, and/or hardware items." *Id.*

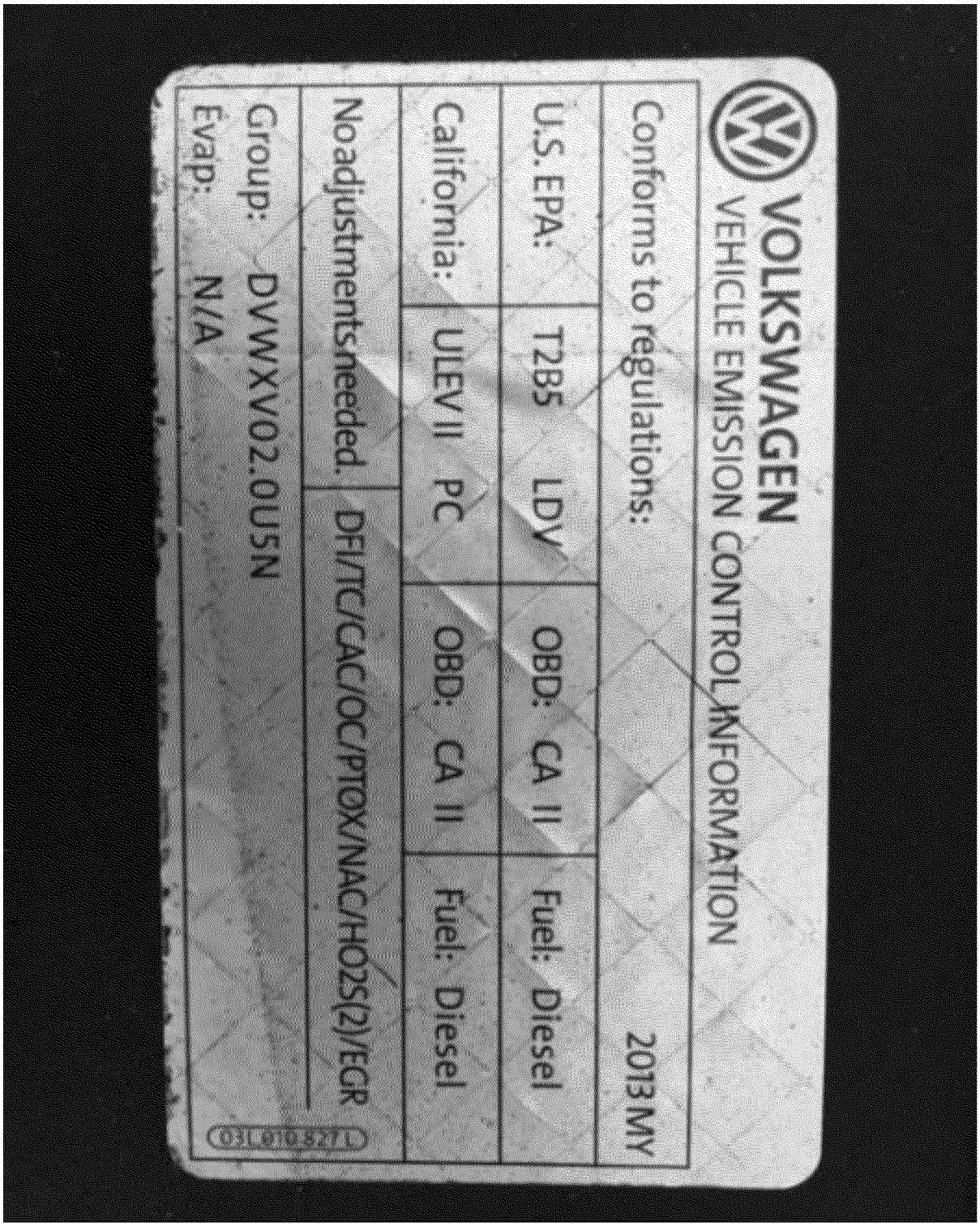
To obtain a COC, a light-duty vehicle manufacturer must submit a COC application to the EPA for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1 843-0 1. The COC application must include, among other things, a list of all auxiliary emission control devices (AECDs) installed on the vehicles. 40 C.F.R. § 86. 1844-01 (d)(11). An AECD is "any element of design which senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86. 1803-01. The COC application must also include "ajustification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a

defeat device." 40 C. F .R. § 86. 1844-01 (d)(11). A defeat device is an AECD " that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . ... " 40 C.F.R. § 86. 1803-01.

Persons who violate section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B), are subject to a civil penalty of up to $3,750 for each violation that occurred on or after January 13, 2009;[1] CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4. In addition, any manufacturer who, on or after January 13, 2009, sold, offered for sale, introduced into commerce, delivered for introduction into commerce, imported, or caused any of the foregoing acts with respect to any new motor vehicle that was not covered by an EPA-issued COC is subject, among other things, to a civil penalty of up to $37,500 for each violation.[2] CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4. Additional equitable remedies to further address these alleged violations are also authorized. CAA § 204(a). 42 U.S.C. § 7523(a).

VW's certifications, which are affixed to hundreds of thousands of non-compliant vehicles are false. An exemplar of these certifications is as follows:

[1] $2.750 for violations occurring prior to January 13. 2009.
[2] $32,500 for violations occurring prior to January 13, 2009.


VOLKSWAGEN
VEHICLE EMISSION CONTROL INFORMATION
Conforms to regulations:
2013 MY
U.S. EPA:
T2B5
LDV
OBD: CA II
Fuel: Diesel
California:
ULEV II
PC
OBD: CA II
Fuel: Diesel
No adjustments needed.
DFI/TC/CAC/OC/PTOX/NAC/HO2S(2)/EGR
Group: DVWXV02.0U5N
Evap: N/A
03L 010 827 A

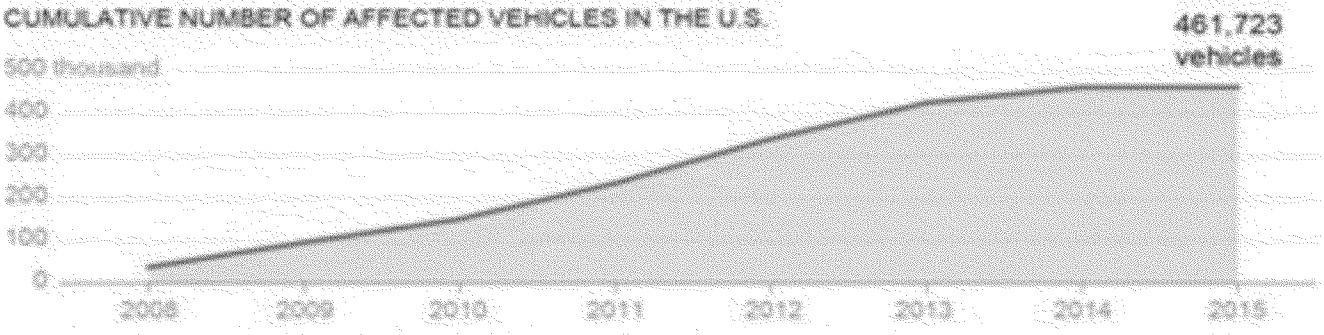
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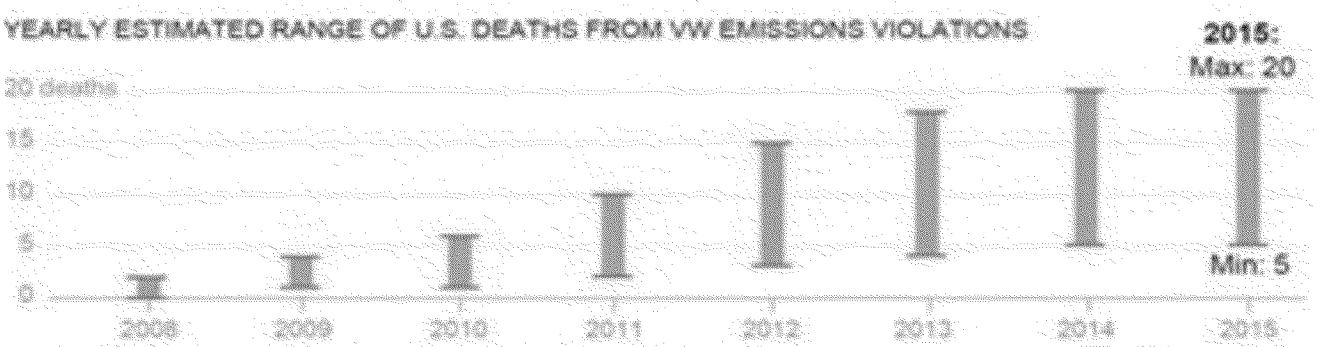
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U.S. pollution resulting from Volkswagen's dodging of emissions tests is enough to have caused dozens of deaths since 2008. An AP analysis calculated upper and lower limits of pollution using the number of affected vehicles each year and average mileage. Scientists used that data in epidemiological computer models to estimate a range of deaths.

CUMULATIVE NUMBER OF AFFECTED VEHICLES IN THE U.S.

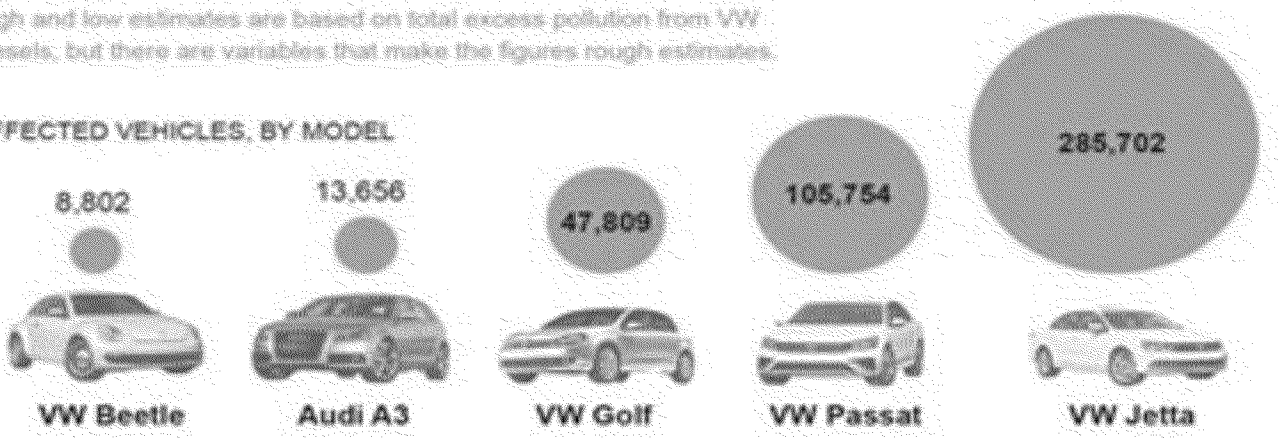


YEARLY ESTIMATED RANGE OF U.S. DEATHS FROM VW EMISSIONS VIOLATIONS



High and low estimates are based on total excess pollution from VW diesels, but there are variables that make the figures rough estimates.

AFFECTED VEHICLES, BY MODEL



NOTE: The total of 47,809 for VW Golf includes 3,530 VW Golf Sportswagen vehicles. The total figure of 461,723 is derived from Kelley Blue Book vehicle registration data. The Environmental Protection Agency estimates the total number of affected vehicles in the U.S. to be about 482,000.

SOURCES: AP analysis of data from the U.S. Environmental Protection Agency and Kelley Blue Book; AP Professor Peter Adams, Carnegie Mellon; Volkswagen; Audi

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[redacted]

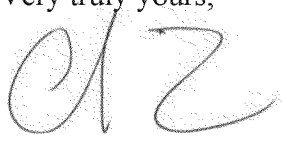
As the AP article notes, the Class Vehicles released enough NOx over the course of seven years to significantly degrade the environment in urban areas.

The full name and contact of the parties giving notice are as follows: Maria Bourn, David Watson, Stephen Verner, Mark Schumacher and the Center for Auto Safety, each of whom may be contacted through their counsel, Hausfeld LLP, 600 Montgomery Street, 32nd Floor, San Francisco, CA 94111 (Tel.: 415-633-1908).

The parties give you notice of their intent to sue the VW entities identified above pursuant to 42 U.S.C. § 7604(a)(1) sixty days following the date of this notice in the United States District Court for the Eastern District of Virginia. Notice is deemed given on the postmark date. See 40 C.F.R. § 54.2(d)

If you believe that any portion of this notice is provided in error, or if you wish to discuss any portion of this notice, please do not hesitate to contact me.

Very truly yours,



Christopher L. Lebsock
Partner

VW FOIA, EPA 06/20/2017 2017-FFP_037522

EXHIBIT 2

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CHRISTOPHER L. LEBSOCK
Partner

600 Montgomery Street
Suite 3200
San Francisco, CA 94111

415-633-1949 Direct
415-633-1908 Main
415-358-4980 Fax

clebsock@hausfeld.com

November 5, 2015

VIA CERTIFIED U.S. MAIL

Ex. 7

Audi AG
Inglostadt
Bayern 85057
Germany

Porsche AG
Dr. Ing. h.c. F. Porsche AG
Porscheplatz 1
D - 70435 Stuttgart

Porsche Cars North America, Inc.
One Porsche Drive
Atlanta, GA 30354

Ex. 7

Audi of America, Inc.
c/o Corporation Service Company
Bank of America Center
111 East Main Street
Richmond, VA 23219

Ex. 7

Ex. 7

Ex. 7

Ex. 7

General Counsel
Audi of America, Inc.
2200 Ferdinand Porsche Drive
Herndon, VA 20171

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[redacted]

Regional Administrator
Pacific Northwest Region
Environmental Protection Agency
1200 6th Avenue, Suite 900
Seattle, WA 98101

Jay Inslee
Governor of Washington State
PO Box 40002
Olympia, WA 98504-0002

General Counsel
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Lacey, WA 98503

Regional Administrator
New England Region
Environmental Protection Agency
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Charlie Baker
Governor of Massachusetts
Massachusetts State House
Office of the Governor, Room 280
Boston, MA 02133

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Boston, Massachusetts 02108

Regional Administrator
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290 Broadway
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Regional Administrator
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General Counsel
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Rachel Carson State Office Building
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Harrisburg, PA 17101

Tom Wolf
Governor of Pennsylvania
508 Main Capitol Building
Harrisburg, PA 17120

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General Counsel
Arizona Department of Environmental Quality
1110 W. Washington Street
Phoenix, AZ 85007

Douglas Ducey
Governor of Arizona
1700 West Washington Street
Phoenix, AZ 85007

General Counsel
Connecticut Department of Energy & Environmental Protection
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Hartford, CT 06106-5127

Daniel P. Malloy
Governor of Connecticut
210 Capitol Avenue
Hartford, CT 06106

General Counsel
Maine Department of Environmental Protection
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Augusta, Maine 04333-0017

Paul R. LePage
Governor of Maine
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Augusta, ME 04333-0001

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Larry Logan
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Annapolis, MD 21401

General Counsel
New Jersey Department of Environmental Protection
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7th Floor, East Wing
P.O. Box 402
Trenton, NJ 08625-0402

Chris Christie
Governor of New Jersey
PO Box 001
Trenton, NJ 08625

General Counsel
New Mexico Environment Department
Harold L. Runnels Building
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Santa Fe, New Mexico 87505

Susana Martinez
Governor of New Mexico
490 Old Santa Fe Trail, Room 400
Santa Fe, NM 87501

VW FOIA, EPA 06/20/2017 2017-FFP_037526

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General Counsel
Oregon Department of Environmental Quality
811 SW 6th Avenue
Portland, OR 97204-1390

Kate Brown
Governor of Oregon
160 State Capitol
900 Court Street
Salem, OR 97301-4047

General Counsel
Rhode Island Department of Environmental Management
235 Promenade Street
Providence, RI 02908-5767

Gina M. Raimondo
Governor of Rhode Island
82 Smith Street
Providence, RI 02903

General Counsel
Vermont Department of Environmental Conservation
1 National Life Drive, Main 2
Montpelier, VT 05620-3520

Peter Shumlin
Governor of Vermont
109 State Street, Pavilion
Montpelier, VT 05609

RE: ***VW Emissions Violations; Notice of Intent to Sue.***

Dear Sir or Madame:

Pursuant to 42 U.S.C. § 7604(b), we write to notify you that Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen of America, Inc., Porsche Cars North America, Inc., and Audi of America, Inc. (collectively "VW") are alleged to have violated the Clean Air Act ("CAA"), 42 U.S.C. §§ 7401 - 7671q, and its implementing regulations, and the motor vehicle emissions laws, regulations and orders of California, Arizona, Connecticut, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington by installing "defeat devices" on its emissions control systems for at least the following Volkswagen, Porsche, and Audi vehicles with diesel engines sold in the United States:

- VW Jetta TDI (Model Years 2009-15);
- VW Jetta SportWagen TDI (Model Years 2009-14);

- VW Golf TDI (Model Years 2010-15);
- VW Golf SportWagen TDI (Model Year 2015);
- VW Beetle TDI and VW Beetle Convertible TDI (Model Years 2012-15);
- VW Passat TDI (Model Years 2012-15);
- Audi A3 TDI (Model Years 2010-15);
- VW Toureg (Model Years 2014-15);
- Porsche Cayenne (Model Years 2014-2016);
- Audi A6 Quattro, A7 Quattro, A8, A8L, and Q5 (Model Years 2015-16).

The defeat devices masked real world NOx emissions that exceeded emissions levels authorized by the U.S. Environmental Protection Agency limits by 9 to 40 times.

VW has widely admitted to its violation of E.P.A. and California Air Resources Board rules and regulations (which have been adopted in 13 states), and to its deception of state and federal regulators. On October 8, 2016, VW additionally publicly announced that some or all of its SCR engines may be non-compliant with state and federal regulations. On November 2, 2015, the United States Environmental Protection Agency issued a notice of violation regarding a portion of these vehicles and VW immediately imposed a sales ban on all late-model vehicles with 3.0 liter diesel engines in the United States. VW executives at the highest level of the company were aware of these emissions violations and these individuals authorized concealment through the use of a sophisticated software code that understood when an engine was being subjected to an emissions test. The software then altered engine settings to allow the vehicle to pass the emissions test. Thereafter, the engine would revert to normal settings for real-world driving conditions.

The CAA makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or

should know that such part or component is being offered for sale or installed for such use or put to such use.'" CAA § 203(a)(3)(B), 42 U.S.C. § 7522(a)(3)(B); 40 C.F.R. § 86. 1854-12(a)(3)(ii). Additionally, manufacturers are prohibited from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing, any new motor vehicle unless that vehicle is covered by an EPA-issued Certificate of Conformity ("COC"). CAA § 203(a)(1), 42 U.S.C. § 7522(a)(1); 40 C.F.R. § 86. 1854-1 2(a)(l). It is also a violation to cause any of the foregoing acts. CAA § 203(a), 42 U.S.C. § 7522(a); 40 C.F.R. § 86-1854- 12(a).

"Vehicles are covered by a certificate of conformity only if they are in all material respects as described in the manufacturer's application for certification . . . ." 40 C.F.R. § 86.1848-10(c)(6). Similarly, a COC issued by EPA, including those issued to VW, state expressly, "[t]his certificate covers only those new motor vehicles or vehicle engines which conform, in all material respects, to the design specifications" described in the application for that COC. *See also* 40 C.F.R. §§ 86. 1844-01 (listing required content for COC applications), 86.1848-0 l (b) (authorizing the EPA to issue COCs on any terms that are necessary or appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

Motor vehicles equipped with defeat devices, such as those at issue here, cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86-1809-01, 86- 1809-10, 86-1809-1 2. Electronic control systems which may receive inputs from multiple sensors and control multiple actuators that affect the emission control system's performance are AECDs. EPA, *Advisaty Circular Number 24-2: Prohibition of Emission Control Defeat Devices - Optional Objective Criteria* (Dec. 6, 1978). "Such elements of design could be control system logic (i.e., computer software), and/or calibrations, and/or hardware items." *Id.*

To obtain a COC, a light-duty vehicle manufacturer must submit a COC application to the EPA for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1 843-0 1. The COC application must include, among other things, a list of all auxiliary emission control devices (AECDs) installed on the vehicles. 40 C.F.R. § 86. 1844-01 (d)(11). An AECD is "any element of design which senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86. 1803-01. The COC application must also include "ajustification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a

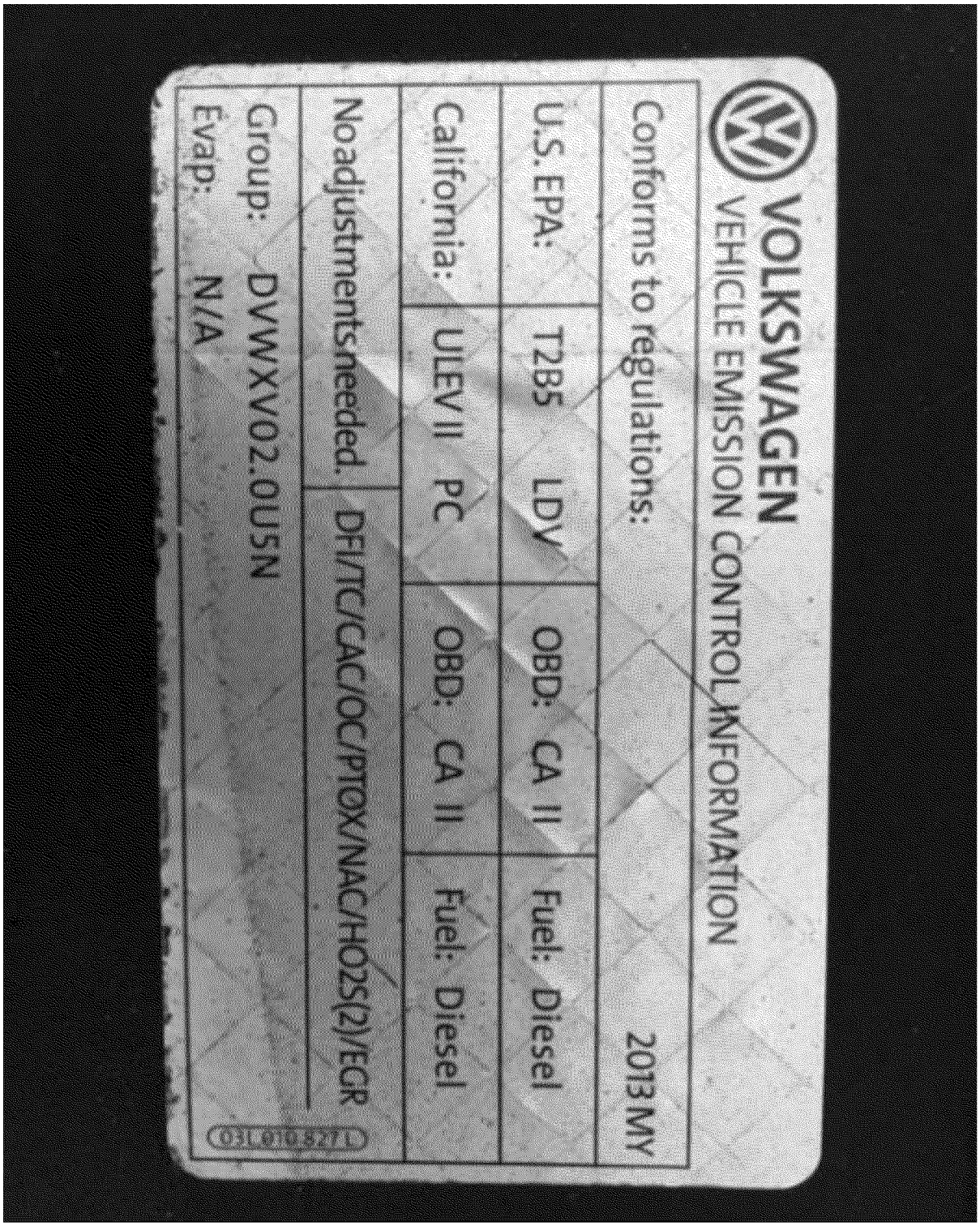
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VEHICLE EMISSION CONTROL INFORMATION
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OBD: CA II
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DFI/TC/CAC/OC/PTOX/NAC/HO2S(2)/EGR
Group: DVWXV02.0U5N
Evap: N/A
03L 010 827 A

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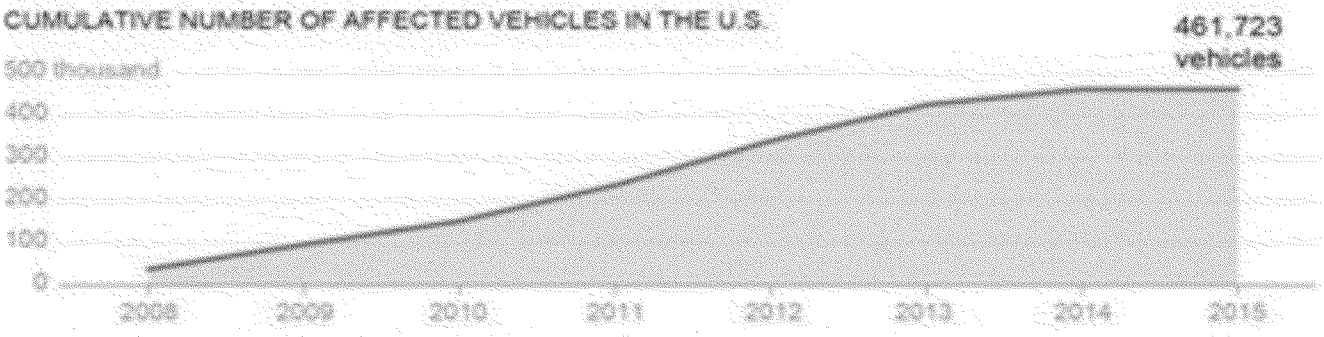
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PAGE 10
November 5, 2015

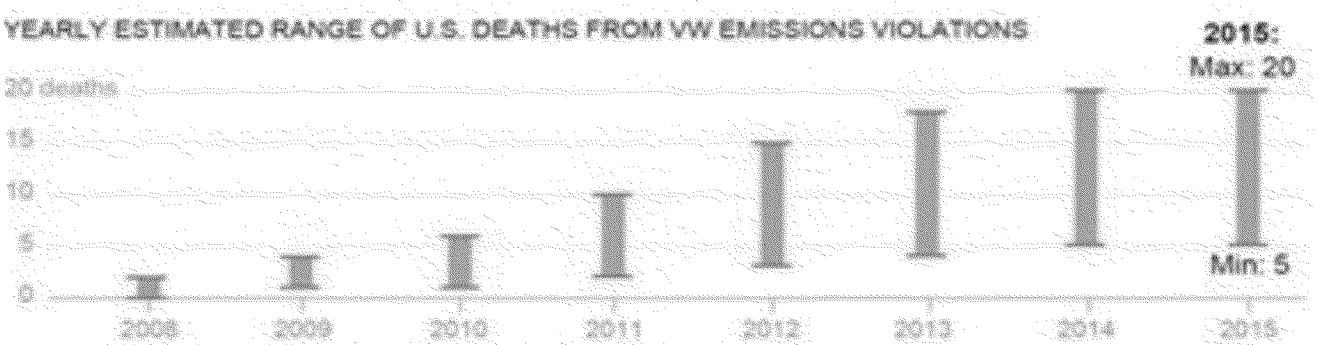
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U.S. pollution resulting from Volkswagen's dodging of emissions tests is enough to have caused dozens of deaths since 2008. An AP analysis calculated upper and lower limits of pollution using the number of affected vehicles each year and average mileage. Scientists used that data in epidemiological computer models to estimate a range of deaths.

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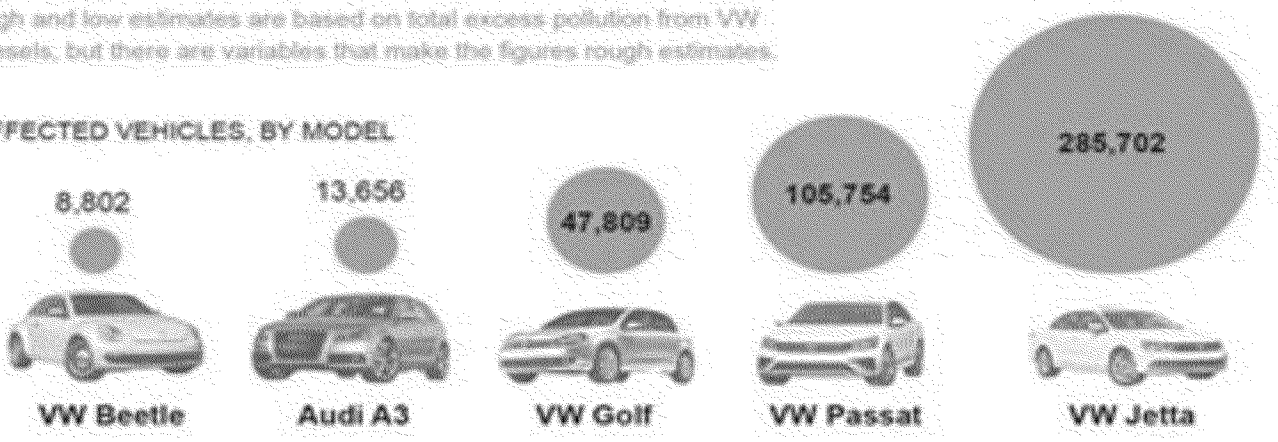


YEARLY ESTIMATED RANGE OF U.S. DEATHS FROM VW EMISSIONS VIOLATIONS



High and low estimates are based on total excess pollution from VW diesels, but there are variables that make the figures rough estimates.

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NOTE: The total of 47,809 for VW Golf includes 3,530 VW Golf Sportswagen vehicles. The total figure of 461,723 is derived from Kelley Blue Book vehicle registration data. The Environmental Protection Agency estimates the total number of affected vehicles in the U.S. to be about 482,000.

SOURCES: AP analysis of data from the U.S. Environmental Protection Agency and Kelley Blue Book; AP Professor Peter Adams, Carnegie Mellon; Volkswagen; Audi

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[redacted]

As the AP article notes, the Class Vehicles released enough NOx over the course of seven years to significantly degrade the environment in urban areas.

The full name and contact of the parties giving notice are as follows: Maria Bourn, David Watson, Stephen Verner, Mark Schumacher and the Center for Auto Safety, each of whom may be contacted through their counsel, Hausfeld LLP, 600 Montgomery Street, 32nd Floor, San Francisco, CA 94111 (Tel.: 415-633-1908).

The parties give you notice of their intent to sue the VW entities identified above pursuant to 42 U.S.C. § 7604(a)(1) sixty days following the date of this notice in the United States District Court for the Eastern District of Virginia. Notice is deemed given on the postmark date. See 40 C.F.R. § 54.2(d)

If you believe that any portion of this notice is provided in error, or if you wish to discuss any portion of this notice, please do not hesitate to contact me.

Very truly yours,

Christopher L. Lebsock
Partner

VW FOIA, EPA 06/20/2017 2017-FFP_037534

To: Snyder, Jim[Snyder.Jim@epa.gov]; French, Roberts[french.roberts@epa.gov]; Ex. 7 Ex. 7 Wright, DavidA[Wright.DavidA@epa.gov]
From: Ex. 7
Sent: Tue 1/19/2016 4:46:45 PM
Subject: RE: CREE DF Proposal
CREE DF Request.pdf

To all:

Attached is the brief slide presentation for our 2:30 p.m. discussion today. It is my understanding that EPA will be represented by Jim Snyder and David Wright. [redacted] and I will be present from VW.

Best regards,

Ex. 7

Ex. 7
Emission Regulations and Certification
Engineering and Environmental Office
Volkswagen Group of America, Inc.

Phor
Cell:
Fax:
E-Ma

Ex. 7

-----Original Appointment-----
From: Ex. 7
Sent: Friday, January 15, 2016 10:12 AM
To: Ex. 7 Jim Snyder (snyder.jim@epamail.epa.gov); French.roberts@Epa.gov; Ex. 7 Ex. 7
Cc: Snyder, Jim
Subject: CREE DF Proposal
When: Tuesday, January 19, 2016 2:30 PM-3:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: Skype Meeting

As discussed with Jim Snyder of EPA, Volkswagen would appreciate an opportunity to meet with EPA to discuss a CREE DF proposal for PHEV.

I have added a call-in number to allow participation by VW staff, or others, unable to attend in person.

Best regards,

Ex. 7

Ex. 7

Emission Regulations and Certification
Engineering and Environmental Office
Volkswagen Group of America, Inc.

Phone
Cell: (
Fax: (
E-Mail

Ex. 7

→ Join Skype Meeting

This is an online meeting for Skype for Business, the professional meetings and communications app formerly known as Lync.

Join by phone

+1 (248) 754-6400 (Auburn Hills)	English (United States)
+1 (855) 858-8080 (Auburn Hills)	English (United States)

Find a local number

Conference ID: Non-Responsive

Forgot your dial-in PIN? | Help

To: Ex. 7 Snyder, Jim[Snyder.Jim@epa.gov]; Ex. 7 Ex. 7 Wright, DavidA[Wright.DavidA@epa.gov]
From: French, Roberts
Sent: Tue 1/19/2016 6:23:30 PM
Subject: RE: CREE DF Proposal

Ex. 7

As Jim may have conveyed to you, I had a last-minute change to an off-site appointment and won't be able to make it. But I have looked at your proposal, and I don't immediately see any major issues with the concept. Of course, this is just me speaking, and the use of CREE DFs (while required by the regulations if CREE is known to deteriorate) is a relatively new undertaking for all of us.

One thing I would do is – for now – keep the discussion focused on CREE compliance. When the CD range of a PHEV is known to deteriorate over time, it can be tempting to try to roll other issues, such as labeling and CAFE, into the conversation. I'd address these issues separately so everyone stays on the same page.

One other point is that when these vehicles are tested in use (if in fact they are, and if in fact you or we do a full charge-depleting test), the UF that will be used will be the one derived from the CD range determined for that in-use test. I note this because you have an in-use DF identified as differing from the one achieved at Cert, which you probably did for illustrative purposes, but I thought I should mention it anyway.

Rob

Roberts W. French, Jr.

U.S. Environmental Protection Agency

National Vehicle and Fuel Emissions Laboratory

2000 Traverwood Drive

Ann Arbor, Michigan 48105

(734) 214-4380

From: Ex. 7
Sent: Tuesday, January 19, 2016 11:47 AM
To: Snyder, Jim <Snyder.Jim@epa.gov>; French, Roberts <french.roberts@epa.gov>; Ex. 7 Wright, DavidA <Wright.DavidA@epa.gov>
Subject: RE: CREE DF Proposal

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Ex. 7

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Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: Ex. 7

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To Ex. 7 Jim Snyder (snyder.jim@epamail.epa.gov); French.roberts@Epa.gov;
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As Jim may have conveyed to you, I had a last-minute change to an off-site appointment and won't be able to make it. But I have looked at your proposal, and I don't immediately see any major issues with the concept. Of course, this is just me speaking, and the use of CREE DFs (while required by the regulations if CREE is known to deteriorate) is a relatively new undertaking for all of us.

One thing I would do is – for now – keep the discussion focused on CREE compliance. When the CD range of a PHEV is known to deteriorate over time, it can be tempting to try to roll other issues, such as labeling and CAFE, into the conversation. I'd address these issues separately so everyone stays on the same page.

One other point is that when these vehicles are tested in use (if in fact they are, and if in fact you or we do a full charge-depleting test), the UF that will be used will be the one derived from the CD range determined for that in-use test. I note this because you have an in-use DF identified as differing from the one achieved at Cert, which you probably did for illustrative purposes, but I thought I should mention it anyway.

Rob

Roberts W. French, Jr.

U.S. Environmental Protection Agency

National Vehicle and Fuel Emissions Laboratory

2000 Traverwood Drive

Ann Arbor, Michigan 48105

(734) 214-4380

From: Ex. 7
Sent: Tuesday, January 19, 2016 11:47 AM
To: Snyder, Jim <Snyder.Jim@epa.gov>; French, Roberts <french.roberts@epa.gov>;
Ex. 7
Wright, DavidA <Wright.DavidA@epa.gov>
Subject: RE: CREE DF Proposal

To all:

Attached is the brief slide presentation for our 2:30 p.m. discussion today. It is my understanding that EPA will be represented by Jim Snyder and David Wright. [redacted] and I will be present from VW.

Best regards,

Ex. 7

Ex. 7

Emission Regulations and Certification

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone: Ex. 7

Cell: Ex. 7

Fax:

E-Ma

-----Original Appointment-----
From: Ex. 7
Sent: Friday, January 15, 2016 10:12 AM
To: Ex. 7 Jim Snyder (snyder.jim@epamail.epa.gov); French.roberts@Epa.gov; Ex. 7
Cc: Snyder, Jim
Subject: CREE DF Proposal
When: Tuesday, January 19, 2016 2:30 PM-3:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: Skype Meeting

As discussed with Jim Snyder of EPA, Volkswagen would appreciate an opportunity to meet with EPA to discuss a CREE DF proposal for PHEV.

I have added a call-in number to allow participation by VW staff, or others, unable to attend in person.

Best regards,

Ex. 7

Ex. 7

Ex. 7

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone

Cell: (

Fax: (

E-Mai

Ex. 7

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To: Shimamura, Monica[Shimamura.Monica@epa.gov]; .WASH VW-HOSP2 Leidescher, Susanne[vw-hosp2@wash.auswaertiges-amt.de]
Cc: Phillips, Anna[Phillips.Anna@epa.gov]; Ferland, Henry[Ferland.Henry@epa.gov]; Pflanz, Kristina[Pflanz.Kristina@epa.gov]
From: .WASH WI-2 Weber, Michael
Sent: Wed 1/20/2016 6:17:25 PM
Subject: AW: Global Methane Forum Embassy Briefing -- January 20

Dear Monica,

I'm afraid I won't be able to join the briefing anymore. However, my colleague Susanne Leidescher will be attending in my place. I hope this last minute change won't be a problem for security.

Best,

Michael

Von: Shimamura, Monica [mailto:Shimamura.Monica@epa.gov]
Gesendet: Dienstag, 19. Januar 2016 11:55
An: .WASH WI-2 Weber, Michael
Cc: Phillips, Anna; Ferland, Henry; Pflanz, Kristina
Betreff: RE: Global Methane Forum Embassy Briefing -- January 20

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3:00 – 3:20	**Welcoming remarks (Paul Gunning, US EPA)**
3:20 – 3:35	Remarks – overview of Climate and Clean Air Coalition (Karen Florini, U.S. Department of State)
3:35 – 3:50	Overview of Global Methane Forum (GMI Administrative Support Group)
3:50 – 4:00	Questions & Answers

We look forward to seeing you tomorrow at the Hall of States, 444 North Capitol Street NW, Washington, DC 20001 (Room 231).

Best,

Monica



Monica Shimamura

Co-Director, Global Methane Initiative Secretariat

Hosted by U.S. Environmental Protection Agency

Phone: (202) 343-9337

www.globalmethane.org

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1201 Constitution Ave NW, Room Number 4353RR

Washington, DC 20004

USA

Postal Address:
1200 Pennsylvania Ave., NW (6207A)
Washington DC 20460
USA

From: .WASH WI-2 Weber, Michael [mailto:wi-2@wash.auswaertiges-amt.de]
Sent: Thursday, January 14, 2016 11:09 AM
To: Shimamura, Monica <Shimamura.Monica@epa.gov>
Cc: Phillips, Anna <Phillips.Anna@epa.gov>
Subject: WG: Global Methane Forum Embassy Briefing -- January 20
Importance: High

Dear Monica,

I'd like to RSVP for the embassy briefing on the Global Methane Forum next week.

Best,

Michael

Michael Weber

Energy Policy Advisor

Embassy of the Federal Republic of Germany

4645 Reservoir Road NW

Washington, DC 20007

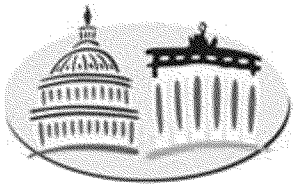
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Fax: +1 (202) 298 4391

E-mail: wi-2@wash.diplo.de

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@GermanyinUSA

Von: Phillips, Anna [mailto:Phillips.Anna@epa.gov]

Gesendet: Dienstag, 12. Januar 2016 13:26
An: .WASH WI-2 Weber, Michael; .WASH WI-6 Maue, Georg
Betreff: FW: Global Methane Forum Embassy Briefing -- January 20
Wichtigkeit: Hoch

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Since the original invitation went out just before the holidays -- and since the event is next week – I have been asked to reach out to my embassy partners from GMI Partner countries to encourage their participation in the GMF briefing. We hope that you and/or your colleagues will be able to participate -- and I hope to see you there!

All the best,
Anna

~~~~~~

Anna Phillips

Program Manager for Europe
U.S. Environmental Protection Agency (EPA)

Office of International & Tribal Affairs

Washington, D.C. 20460

Tel: (+1) 202.564.6419 Fax: (+1) 202.565.2427
E-mail: phillips.anna@epa.gov

http://www2.epa.gov/international-cooperation

~~~~~~

 ***Please consider the environment before printing this message.***

From: Shimamura, Monica
Sent: Monday, January 11, 2016 1:32 PM
To: Phillips, Anna <Phillips.Anna@epa.gov>
Subject: RE: Global Methane Initiative (GMI) Rechartering Consensus: Impacts and Next Steps

Dear Colleague:

On behalf of the Global Methane Initiative (GMI), the U.S. Environmental Protection Agency cordially invites you to the **Hall of States** (444 North Capitol Street NW, Washington, DC, 20001) on **Wednesday, January 20, 2016**, from 2:30 pm – 4:00 pm to attend an event in preparation for the 2016 Global Methane Forum. Coffee and networking will be begin at 2:30 pm and talks will begin promptly at 3:00 pm.

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As a GMI Partner, your country's participation in the 2016 Global Methane Forum will be extremely valuable to renew global cooperation to address methane. At the upcoming preparatory event on January 20, we will provide you with information about the Global Methane Forum as well as background information on GMI and its strategic partnerships. We will be ready to answer questions and assist you in raising awareness and encouraging participation in the Global Methane Forum with colleagues and stakeholders in your country.

We look forward to seeing you in January. Please **RSVP by January 15, 2016**, to Shimamura.monica@epa.gov to confirm your attendance. If we have misdirected this invitation, please forward it to the relevant point of contact at your embassy.

Thank you again, and please contact us if you have any questions at Ferland.henry@epa.gov or Shimamura.monica@epa.gov .

Sincerely,

Henry Ferland and Monica Shimamura

Global Methane Initiative Administrative Support Group



Monica Shimamura

Co-Director, Global Methane Initiative Secretariat

Hosted by U.S. Environmental Protection Agency

Phone: (202) 343-9337

www.globalmethane.org

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Washington, DC 20004

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Washington DC 20460
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To: .WASH WI-2 Weber, Michael[wi-2@wash.auswaertiges-amt.de]; .WASH VW-HOSP2 Leidescher, Susanne[vw-hosp2@wash.auswaertiges-amt.de]
Cc: Phillips, Anna[Phillips.Anna@epa.gov]; Ferland, Henry[Ferland.Henry@epa.gov]; Pflanz, Kristina[Pflanz.Kristina@epa.gov]
From: Shimamura, Monica
Sent: Wed 1/20/2016 6:24:28 PM
Subject: RE: Global Methane Forum Embassy Briefing -- January 20

Dear Michael,

Thank you for letting us know of the change and we will miss you at the event.

We look forward to meeting you Susanne.

Best regards,

Monica

Global Methane Initiative

Monica Shimamura

Co-Director, Global Methane Initiative Secretariat

Hosted by U.S. Environmental Protection Agency

Phone: (202) 343-9337

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Sent: Wednesday, January 20, 2016 1:17 PM
To: Shimamura, Monica <Shimamura.Monica@epa.gov>; .WASH VW-HOSP2 Leidescher, Susanne <vw-hosp2@wash.auswaertiges-amt.de>
Cc: Phillips, Anna <Phillips.Anna@epa.gov>; Ferland, Henry <Ferland.Henry@epa.gov>; Pflanz, Kristina <Pflanz.Kristina@epa.gov>
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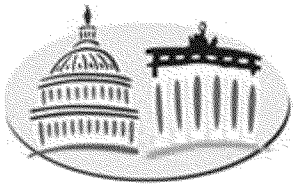
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U.S. Environmental Protection Agency (EPA)

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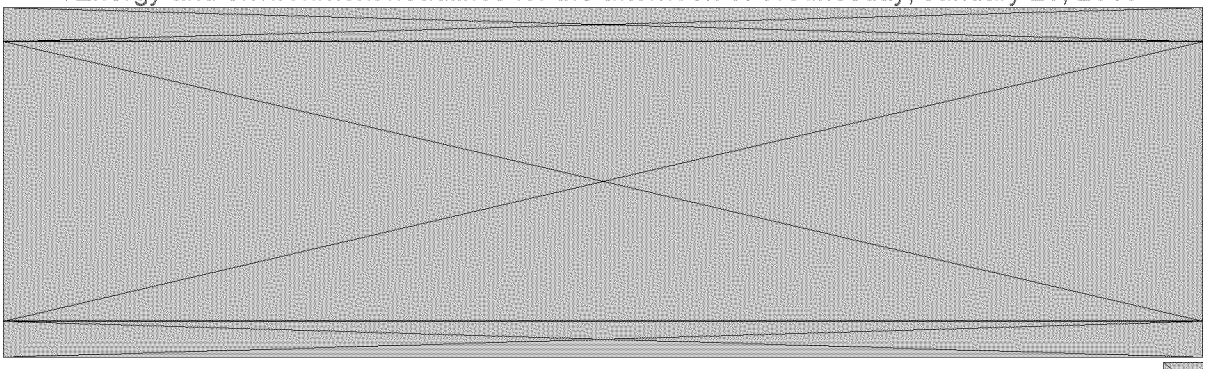
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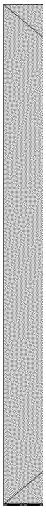
To: Bunker, Byron[bunker.byron@epa.gov]
From: EnergyGuardian
Sent: Wed 1/20/2016 10:00:55 PM
Subject: NOAA, NASA: 2015 was Earth's hottest by a wide margin

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Energy and environment headlines for the afternoon of Wednesday, January 20, 2016





NOAA, NASA: 2015 was Earth's hottest by a wide margin

By Seth Borenstein

WASHINGTON (AP) — Last year wasn't just the Earth's hottest year on record — it left a century of high temperature marks in the dust.

The National Oceanic Atmospheric Administration and NASA announced Wednesday that 2015 was by far the hottest year in 136 years of record keeping. For the most part, scientists at the agencies and elsewhere blamed man-made global warming, with a boost from El Nino

NOAA said 2015's temperature was 58.62 degrees Fahrenheit (14.79 degrees Celsius), passing 2014 by a record margin of 0.29 degrees. That's 1.62 degrees above the 20th-century average. NASA, which measures differently, said 2015 was 0.23 degrees warmer than the record set in 2014 and 1.6 degrees above 20th century average.

Because of the wide margin over 2014, NASA calculated that 2015 was a record with 94 percent certainty, more than double the certainty it had last year when announcing 2014 as a record. NOAA put the number at above 99 percent — or "virtually certain," said Tom Karl, director of NOAA's National Centers for Environmental Information.

For the first time Earth is 1 degree Celsius (1.8 degrees Fahrenheit) warmer than it was in pre-industrial times, NOAA and NASA said. That's a key milestone because world leaders have set a threshold of trying to avoid warming of 1.5 or degrees Celsius above pre-industrial times.

Because of the pace of rising temperatures, "we don't have very far to go to reach 1.5," Karl said.

But 1.5 or 2 degrees are not "magic numbers" and "we're already seeing the impacts of global warming," said NASA Goddard Institute of Space Studies director Gavin Schmidt.

"This trend will continue; it will continue because we understand why it's happening," Schmidt said. "It's happening because the dominant force is carbon dioxide" from burning of fossil fuels like coal, oil and gas.

Although 2015 is now the hottest on record, it was the fourth time in 11 years that Earth broke annual marks for high temperature.

"It's getting to the point where breaking record is the norm," Texas Tech climate scientist Katharine Hayhoe said. "It's almost unusual when we're not breaking a record."

December 2015 was the 10th month last year that set a monthly warmth record, with only January and April not hitting high marks.

"That's the first time we've seen that," said NOAA's Karl.

In December, the globe was 2 degrees Fahrenheit warmer than normal, beating the old record set in 2014 by more than a half a degree, NOAA calculated.

Earth has broken monthly heat records 34 times since 2000. The last time a global cold month record was set was December 1916 and the coldest year on record was 1911, according to NOAA.

An added factor this year is the strong El Nino, a warming of parts of the Pacific Ocean that changes weather worldwide and adds to the globe's heat. Michael Mann of Pennsylvania

State University said a strong El Nino can add about a third of a degree of warming to Earth's temperature but that "sits upon the ramp of global warming."

Karl and Schmidt both said 2015 would have been a record without El Nino. "But El Nino pushed it way over the top," Karl said.

And it's likely to happen this year, too. Schmidt, Karl and others said there's a better than even chance that this year will pass 2015 as the hottest year on record, thanks to El Nino.

"2015 will be difficult to beat, but you say that almost every year and you get surprised," said Vinnie Gensini, a meteorology professor at the College of DuPage outside of Chicago.

Measurements from Japan, the United Kingdom and the University of California at Berkeley also show 2015 is the warmest on record. Satellite measurements, which scientists say don't measure where we live and have a larger margin of error, calculate that last year was only the third hottest since 1979.

Non-scientists who reject mainstream climate science often criticize NOAA for adjustments to past temperature records to reconcile the measurement devices with modern techniques, but even without any adjustments NOAA data shows 2015 as the hottest year on record, Karl said.

Quick Links

Official wishes air monitoring were better after gas leak

Shell expects 4th Q profits to drop at least 40 percent

Stocks avoid biggest losses but slide again as oil tumbles

Cheap oil, good for consumers, is slamming stocks. Why?

Company executive blames decade-old oil leak on 'act of God'

New Mexico sues Volkswagen over emissions scandal

Obama tours auto show, pledges help for Flint's water crisis

Senate panel backs bill to drop wolf protections in 4 states

North Dakota regulators approve Dakota Access Pipeline

Earth's temperature depends on where you put thermometer

Low oil complicates struggle to raise eurozone inflation

South, East brace for big storm, significant snowfall

Upcoming Events

Official wishes air monitoring were better after gas leak

By Brian Melley

LOS ANGELES (AP) — A Los Angeles County public health official says he wishes air pollution monitoring had been more comprehensive soon after a massive natural gas leak was reported in October.

Angelo Bellomo, the county's environmental health director, said Wednesday that better testing was delayed in part because officials believed Southern California Gas Co. would plug its leaking well faster.

The 3-month old leak has been blamed for a variety of ailments and has driven thousands of residents from the Porter Ranch community.

Public agencies took nearly two months to begin measuring long-term health impacts from the cancer-causing chemical benzene and other compounds found in the air.

Before that equipment was in place, benzene was double normal levels in 15 spot tests, though officials say they don't expect any long-term health problems.

Shell expects 4th Q profits to drop at least 40 percent

By Danica Kirka

LONDON (AP) — Royal Dutch Shell expects its fourth quarter profits to drop at least 40 percent to between $1.6 billion and $1.9 billion after a sharp drop in crude oil prices, but underscored its determination to press ahead with the proposed mega-merger with BG Group plc.

The Anglo-Dutch energy giant said Wednesday it released the figures for shareholders ahead of a vote next week on the proposed combination, a 47-billion-pound ($69.7 billion) deal widely seen as an effort to adapt to lower prices. The figures reported were on a current cost-of-supply basis, the oil industry accounting standard that takes into account fluctuations in

the price of oil.

"Bold, strategic moves shape our industry," CEO Ben van Beurden said. "The completion of the BG transaction, which we are expecting in a matter of weeks, will mark the start of a new chapter in Shell, to rejuvenate the company and improve shareholder returns."

There have been concerns about the deal's viability, given the collapse in oil prices. Energy companies are struggling to adjust to an age of lower prices after oil dropped to 12-year lows this month. Brent crude, the benchmark for North Sea oil, traded Wednesday at under $28 a barrel.

However, the BG deal will boost Shell's oil and gas reserves by 25 percent and give it stronger foothold in the fast-growing liquefied natural gas market. BG separately released a statement detailing strength in its Brazilian and Australian operations — results that bolster the rationale behind the deal.

Shell said streamlining and integration from the BG merger would include the loss of 10,000 staff and contractor positions across both companies in 2015-2016. Capital investment for the two companies is currently expected to be $33 billion — which would represent a 45 percent reduction from a 2013 peak of combined spending.

More

Stocks avoid biggest losses but slide again as oil tumbles

By Marley Jay

NEW YORK (AP) — U.S. stocks slumped Wednesday as the price of oil suffered its worst one-day drop since September. A huge sell-off earlier in the day pushed the Standard & Poor's 500 index to its lowest level in almost two years.

Investors are worried that low oil prices mean there's not that much demand for fuel. That would be a sign that growth in the global economy is slowing down. Stocks in the U.S. started sharply lower, following widespread selling overseas, and at one point the Dow Jones industrial average fell as much as 565 points.

After a late recovery, the Dow closed down 249.28 points, or 1.6 percent, to 15,766.74. The S&P 500 index fell 22 points, or 1.2 percent, to 1,859.33. The Nasdaq composite, which briefly turned positive in the afternoon, lost 5.26 points, or 0.1 percent, to 4,471.69.

U.S. crude dropped $1.91, or 6.7 percent, to $26.55 a barrel in New York. That was the biggest one-day plunge for U.S. oil since Sept. 1. U.S. crude is down 28 percent in 2016 and is trading at its lowest level since May 2003.

Brent crude, a benchmark for international oils, fell 88 cents, or 3.1 percent, to $27.88 a barrel in London.

James Liu, global market strategist for JPMorgan Funds, said demand for oil hasn't fallen off and the global economy remains relatively healthy. But companies are still producing a great deal of oil, so tremendous stockpiles have accumulated. While companies started shutting down drilling rigs and wells in late 2014 after prices started to decline, production of oil didn't change much.

More

Cheap oil, good for consumers, is slamming stocks. Why?

By Ken Sweet and David Koenig

NEW YORK (AP) — Wall Street is drowning in oil.

Stocks are having their worst start to a year in history in part because of a rapid plunge in the price of oil. The price of crude is down 28 percent this year already, which in turn has dragged down energy company shares in the Standard & Poor's 500 index by 13 percent, which has helped pull the overall index down 9 percent.

This even though low oil prices — and the cheap prices for gasoline and other fuels that result — are wonderful for consumers and many companies.

"It seems ironic that in the run-up to the global financial crisis we were worried about oil prices being too high in 2007 and 2008. Now we're worried about them being too low," said Julian Jessop, head of commodities research with London-based researchers Capital Economics Ltd.

The drastic drop in oil and stock prices stands in contrast with a U.S. economy that, on the whole, is doing pretty well. U.S employers created 292,000 jobs in December, and few economists see the economy sliding into recession.

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Company executive blames decade-old oil leak on 'act of God'

By Michael Kunzelman

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"We care about what's happening where we live. That's why ground-based temperatures are most relevant to humans," said Texas Tech climate scientist Katharine Hayhoe.

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Low oil complicates struggle to raise eurozone inflation

By David McHugh

FRANKFURT, Germany (AP) — Low oil prices are complicating life for the European Central Bank in its struggle to push up worrisome low inflation in the 19 nations that use the euro currency.

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Whether the current low oil prices will push the bank to increase its stimulus efforts again depends in part on whether the disinflationary impact of the current low oil prices is seen as temporary or long-lasting.

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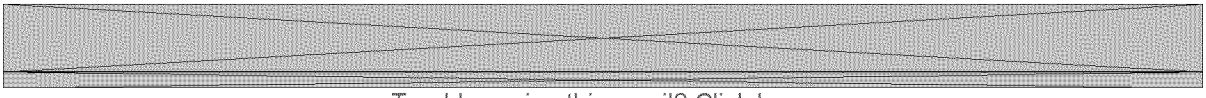
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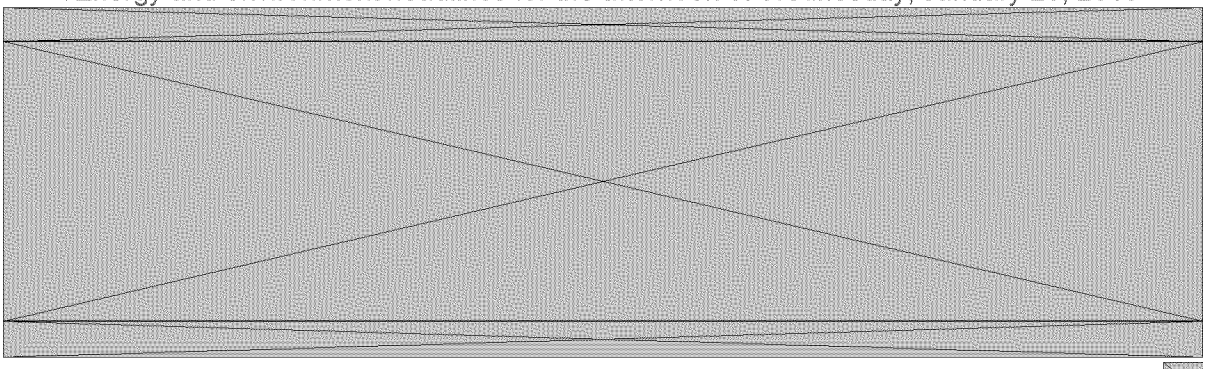
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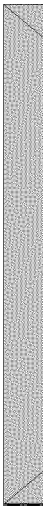
To: Wehrly, Linc[wehrly.linc@epa.gov]
From: EnergyGuardian
Sent: Wed 1/20/2016 10:00:57 PM
Subject: NOAA, NASA: 2015 was Earth's hottest by a wide margin

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Energy and environment headlines for the afternoon of Wednesday, January 20, 2016





NOAA, NASA: 2015 was Earth's hottest by a wide margin

By Seth Borenstein

WASHINGTON (AP) — Last year wasn't just the Earth's hottest year on record — it left a century of high temperature marks in the dust.

The National Oceanic Atmospheric Administration and NASA announced Wednesday that 2015 was by far the hottest year in 136 years of record keeping. For the most part, scientists at the agencies and elsewhere blamed man-made global warming, with a boost from El Nino

NOAA said 2015's temperature was 58.62 degrees Fahrenheit (14.79 degrees Celsius), passing 2014 by a record margin of 0.29 degrees. That's 1.62 degrees above the 20th-century average. NASA, which measures differently, said 2015 was 0.23 degrees warmer than the record set in 2014 and 1.6 degrees above 20th century average.

Because of the wide margin over 2014, NASA calculated that 2015 was a record with 94 percent certainty, more than double the certainty it had last year when announcing 2014 as a record. NOAA put the number at above 99 percent — or "virtually certain," said Tom Karl, director of NOAA's National Centers for Environmental Information.

For the first time Earth is 1 degree Celsius (1.8 degrees Fahrenheit) warmer than it was in pre-industrial times, NOAA and NASA said. That's a key milestone because world leaders have set a threshold of trying to avoid warming of 1.5 or degrees Celsius above pre-industrial times.

Because of the pace of rising temperatures, "we don't have very far to go to reach 1.5," Karl said.

But 1.5 or 2 degrees are not "magic numbers" and "we're already seeing the impacts of global warming," said NASA Goddard Institute of Space Studies director Gavin Schmidt.

"This trend will continue; it will continue because we understand why it's happening," Schmidt said. "It's happening because the dominant force is carbon dioxide" from burning of fossil fuels like coal, oil and gas.

Although 2015 is now the hottest on record, it was the fourth time in 11 years that Earth broke annual marks for high temperature.

"It's getting to the point where breaking record is the norm," Texas Tech climate scientist Katharine Hayhoe said. "It's almost unusual when we're not breaking a record."

December 2015 was the 10th month last year that set a monthly warmth record, with only January and April not hitting high marks.

"That's the first time we've seen that," said NOAA's Karl.

In December, the globe was 2 degrees Fahrenheit warmer than normal, beating the old record set in 2014 by more than a half a degree, NOAA calculated.

Earth has broken monthly heat records 34 times since 2000. The last time a global cold month record was set was December 1916 and the coldest year on record was 1911, according to NOAA.

An added factor this year is the strong El Nino, a warming of parts of the Pacific Ocean that changes weather worldwide and adds to the globe's heat. Michael Mann of Pennsylvania

State University said a strong El Nino can add about a third of a degree of warming to Earth's temperature but that "sits upon the ramp of global warming."

Karl and Schmidt both said 2015 would have been a record without El Nino. "But El Nino pushed it way over the top," Karl said.

And it's likely to happen this year, too. Schmidt, Karl and others said there's a better than even chance that this year will pass 2015 as the hottest year on record, thanks to El Nino.

"2015 will be difficult to beat, but you say that almost every year and you get surprised," said Vinnie Gensini, a meteorology professor at the College of DuPage outside of Chicago.

Measurements from Japan, the United Kingdom and the University of California at Berkeley also show 2015 is the warmest on record. Satellite measurements, which scientists say don't measure where we live and have a larger margin of error, calculate that last year was only the third hottest since 1979.

Non-scientists who reject mainstream climate science often criticize NOAA for adjustments to past temperature records to reconcile the measurement devices with modern techniques, but even without any adjustments NOAA data shows 2015 as the hottest year on record, Karl said.

Quick Links

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Official wishes air monitoring were better after gas leak

By Brian Melley

LOS ANGELES (AP) — A Los Angeles County public health official says he wishes air pollution monitoring had been more comprehensive soon after a massive natural gas leak was reported in October.

Angelo Bellomo, the county's environmental health director, said Wednesday that better testing was delayed in part because officials believed Southern California Gas Co. would plug its leaking well faster.

The 3-month old leak has been blamed for a variety of ailments and has driven thousands of residents from the Porter Ranch community.

Public agencies took nearly two months to begin measuring long-term health impacts from the cancer-causing chemical benzene and other compounds found in the air.

Before that equipment was in place, benzene was double normal levels in 15 spot tests, though officials say they don't expect any long-term health problems.

Shell expects 4th Q profits to drop at least 40 percent

By Danica Kirka

LONDON (AP) — Royal Dutch Shell expects its fourth quarter profits to drop at least 40 percent to between $1.6 billion and $1.9 billion after a sharp drop in crude oil prices, but underscored its determination to press ahead with the proposed mega-merger with BG Group plc.

The Anglo-Dutch energy giant said Wednesday it released the figures for shareholders ahead of a vote next week on the proposed combination, a 47-billion-pound ($69.7 billion) deal widely seen as an effort to adapt to lower prices. The figures reported were on a current cost-of-supply basis, the oil industry accounting standard that takes into account fluctuations in

the price of oil.

"Bold, strategic moves shape our industry," CEO Ben van Beurden said. "The completion of the BG transaction, which we are expecting in a matter of weeks, will mark the start of a new chapter in Shell, to rejuvenate the company and improve shareholder returns."

There have been concerns about the deal's viability, given the collapse in oil prices. Energy companies are struggling to adjust to an age of lower prices after oil dropped to 12-year lows this month. Brent crude, the benchmark for North Sea oil, traded Wednesday at under $28 a barrel.

However, the BG deal will boost Shell's oil and gas reserves by 25 percent and give it stronger foothold in the fast-growing liquefied natural gas market. BG separately released a statement detailing strength in its Brazilian and Australian operations — results that bolster the rationale behind the deal.

Shell said streamlining and integration from the BG merger would include the loss of 10,000 staff and contractor positions across both companies in 2015-2016. Capital investment for the two companies is currently expected to be $33 billion — which would represent a 45 percent reduction from a 2013 peak of combined spending.

More

Stocks avoid biggest losses but slide again as oil tumbles

By Marley Jay

NEW YORK (AP) — U.S. stocks slumped Wednesday as the price of oil suffered its worst one-day drop since September. A huge sell-off earlier in the day pushed the Standard & Poor's 500 index to its lowest level in almost two years.

Investors are worried that low oil prices mean there's not that much demand for fuel. That would be a sign that growth in the global economy is slowing down. Stocks in the U.S. started sharply lower, following widespread selling overseas, and at one point the Dow Jones industrial average fell as much as 565 points.

After a late recovery, the Dow closed down 249.28 points, or 1.6 percent, to 15,766.74. The S&P 500 index fell 22 points, or 1.2 percent, to 1,859.33. The Nasdaq composite, which briefly turned positive in the afternoon, lost 5.26 points, or 0.1 percent, to 4,471.69.

U.S. crude dropped $1.91, or 6.7 percent, to $26.55 a barrel in New York. That was the biggest one-day plunge for U.S. oil since Sept. 1. U.S. crude is down 28 percent in 2016 and is trading at its lowest level since May 2003.

Brent crude, a benchmark for international oils, fell 88 cents, or 3.1 percent, to $27.88 a barrel in London.

James Liu, global market strategist for JPMorgan Funds, said demand for oil hasn't fallen off and the global economy remains relatively healthy. But companies are still producing a great deal of oil, so tremendous stockpiles have accumulated. While companies started shutting down drilling rigs and wells in late 2014 after prices started to decline, production of oil didn't change much.

More

Cheap oil, good for consumers, is slamming stocks. Why?

By Ken Sweet and David Koenig

NEW YORK (AP) — Wall Street is drowning in oil.

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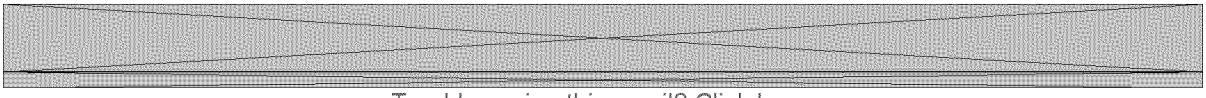
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To: Simon, Karl[Simon.Karl@epa.gov]
From: Bunker, Byron
Sent: Thur 1/21/2016 12:35:57 PM
Subject: FW: IPEEC Transport Task Group - first call of 2016 January 20th
Notes from G20 TTG Conference call.docx
ATT00001.htm

See the attachment. Interesting how some of the parties are quick to say Compliance is important but not actually our ministries job.

From: Drew Kodjak [mailto:drew@theicct.org]
Sent: Wednesday, January 20, 2016 9:34 AM
To: Grundler, Christopher
Cc: Blubaugh, Jim; Bunker, Byron
Subject: Re: IPEEC Transport Task Group - first call of 2016 January 20th

Here are my notes from the call.

Interesting discussion on whether or not to take up Compliance principles within this working group.

Drew

Notes from G20 TTG Conference call
January 20, 2016

ATTENDEES – 9 of 13 countries/ regions in the TTG in attendance.

1. Steering Committee (4 countries)

1. European Commission – Christophe, DG Clima. In the wake of COP21, Commission will publish a "Transportation Decarbonization" Report next summer, and may be challenged on policy pronouncements before then. On HDV CO2 standards, we have a slightly different agenda, not standards, but certification and monitoring reporting, we have been cautious note to engage on HDV CO2 standards. Support low sulfur fuel standards.
2. Italy, Wolfgang, Rome, International Relations Unit of Energy Department, and represents Italy at IEA and IRENA. Regarding our policies on HDV transport efficiency, we are very interested because we rely very much on HDV transport for transport of goods. Local pollution is very important.
3. Mexico, no one present on this call.
4. United States, Maria DeJulian, DOE International Affairs, Bilaterals with China on HDV.

2. Participating Countries (5 countries present)

1. Australia, Vanessa, Department of Industry, Innovation and Science. Also expect to have a representative for Department for Infrastructure. Progress on Australian policy – Vehicle emissions ministerial forum – Australia efficiency standards are some of the lowest in the OECD. The two mentioned plus Environment. Discussion paper about to go out to stakeholders, this has taken place because the manufacture of vehicles is about to end in Australia and opens up new political opportunities.
2. Brazil, Alexander Nina, DOE Foreign Affairs, and representatives from Energy and Mines. About to launch an interministerial process to develop the roadmap that we agreed upon last year. We will try to make progress on the four policies identified. February to June timeline will be ambitious, as we will need to engage multiple agencies, and we may need more time.
3. Canada, Cara Scales, Department of Natural Resources, also Environment and Climate (Kevin Cohens). Will also invite federal Transport Ministry as well.
4. China – Not present - Vance missed the China delegation notification, so no one from China on this call. Key task to engage with them.
5. Germany, Federal Environment Ministry. Measures to reduce CO2 emissions from road transport and fuel quality. We are part of measures mentioned by Christophe at EU level, plus national measures. No detail now.
6. Japan, Ministry of Economy, Trade and Industry (METI), In charge of regulation of energy efficiency and emission standards. We would like to introduce our standards and regulations for the roadmap. In this conference, timeframe and discussion of roadmap.
7. Russia, Not present
8. United Kingdom, Note from Bob Moran indicating that he could not join.

Implementing Organizations

1. ICCT – Drew Kodjak

2. GFEI – Sheila not present

IPEEC – Benoit and Zoe

Agenda
Introductions
Review of 2015 achievements and recommendations
Overview and discussion of 2016 workplan
Deep Dive discussion on compliance and enforcement (25 minutes, led by Drew Kodjak)

Comment – survey – what do we expect to deliver for the policy roadmaps? Policy in place, policy under development, and then lots of ideas that are not under discussion. What level of detail do you want or need and expect from these reports.

Christophe (Brussels)
What is the timeline for these principles? This is a hot topic. We are looking at regultaions and governance, we have a number of departments, horizontal issue. I don't want to send a negative message, but to signal – this is a hot potato – I would need to consult broadly with a number of people – not in a position to give real feedback – what

German - Agree with Christophe – we have investigations ongoing – we will not have an ongoing view – I had some problems with the paper of ICCT – we have to distinguish between compliance – this regulation is enforced – the way it's drafted – based on the results of the test cycles – changing the test cycle – get closer to test cycle – the CO2 legislation – true for most countries of the world – not automatically for most countries of the world – not automatically 1 to 1 – not real world test cycles – this is not clear – there is a non-compliance.

Wolfgang from Rome – we are on the same side on this – however, I would like to point out that the administration that I represent is in charge of policy rather than enforcement and verification. That is the case for many of the . Verification and compliance is a cross cutting process. Excellent workshop organized by our German friends by the Energy Ministry in November – Energy efficiency about possible databases – customer choices – it emerged that there is an issue of compliance and enforcement on all products. So, maybe this needs to be looked at from a broader perspective. It doesn't only touch on transport. If noncompliance occurs, it should be punished. This is a little far off our competencies, I'm not too sure we would be able to support an activity on enforcement – consults with a different ministry.

On Jan 20, 2016, at 8:00 AM, Grundler, Christopher <grundler.christopher@epa.gov> wrote:

Drew--give me a call about this
Ex. 6

Christopher Grundler, Director
Office of Transportation and Air Quality
U.S. Environmental Protection Agency
202.564.1682 (Washington)
734.214.4207 (Ann Arbor)
www.epa.gov/otaq

On Jan 20, 2016, at 6:33 AM, Drew Kodjak <drew@theicct.org> wrote:

Chris, Jim and Byron.

Please note proposal to develop G20 Guidance on Compliance and Enforcement.

Drew.

Sent from my iPhone

Begin forwarded message:

From: "Wagner, David Vance" <WagnerDV2@state.gov>
Date: January 19, 2016 at 10:28:55 PM EST
To: "'helen.bennett@industry.gov.au'"
<helen.bennett@industry.gov.au>,
"'Tanya.Kavanagh@industry.gov.au'"
<Tanya.Kavanagh@industry.gov.au>,
"'brendon.buckley@pmc.gov.au'"
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"'vanessa.morris@industry.gov.au'"
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"'Gabrielle.Dreyfus@Hq.Doe.Gov'"
<Gabrielle.Dreyfus@Hq.Doe.Gov>, "'Blubaugh.Jim@epa.gov'"

<Blubaugh.Jim@epa.gov>, "'ileshukov@g20energy.ru'"
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<kuzmishchev@minprom.gov.ru>, "'giuseppe.ceccarini@esteri.it'"
<giuseppe.ceccarini@esteri.it>, "'ivan.faiella@bancaditalia.it'"
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<noemi.magnanini@gse.it>, "'wolfgang.dinnocenzo@mise.gov.it'"
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"'kenichiro.matsubayashi@mofa.go.jp'"
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"'mgalvan@energia.gob.mx'" <mgalvan@energia.gob.mx>,
"'scazorla@cre.gob.mx'" <scazorla@cre.gob.mx>,
"'vzarate@pemex.com'" <vzarate@pemex.com>,
"'eduardo.ramos@conuee.gob.mx'"
<eduardo.ramos@conuee.gob.mx>,
"'screuheras@energia.gob.mx'" <screuheras@energia.gob.mx>,
"'mvadillo@energia.gob.mx'" <mvadillo@energia.gob.mx>,
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"'sergio.segura@conuee.gob.mx'"
<sergio.segura@conuee.gob.mx>, "'Israel Jauregui Nares'"
<israel.jauregui@conuee.gob.mx>, 'Javier Garcia Osorio'
<javier.garcia@conuee.gob.mx>,
"'Alexandre.PAQUOT@ec.europa.eu'"
<Alexandre.PAQUOT@ec.europa.eu>,
"'Christophe.Rochefordiere@ec.europa.eu'"
<Christophe.Rochefordiere@ec.europa.eu>, "'Pirjo-
Liisa.Koskimaki@ec.europa.eu'" <Pirjo-
Liisa.Koskimaki@ec.europa.eu>,
"'martin.schoepe@bmwi.bund.de'"
<martin.schoepe@bmwi.bund.de>,
"'marius.backhaus.extern@bmwi.bund.de'"
<marius.backhaus.extern@bmwi.bund.de>, "'Karl-
Heinz.Zierock@bmub.bund.de'" <Karl-
Heinz.Zierock@bmub.bund.de>,

"'nero.ferreira@itamaraty.gov.br'" <nero.ferreira@itamaraty.gov.br>, "'dren@itamaraty.gov.br'" <dren@itamaraty.gov.br>, "'alexandre.nina@itamaraty.gov.br'" <alexandre.nina@itamaraty.gov.br>, "'buyu@bank-banque-canada.ca'" <buyu@bank-banque-canada.ca>, "'kristi.varangu@nrcan.gc.ca'" <kristi.varangu@nrcan.gc.ca>, "'Aidan.Wakely-Mulroney@fin.gc.ca'" <Aidan.Wakely-Mulroney@fin.gc.ca>, "'Cara.Scales@NRCan-RNCan.gc.ca'" <Cara.Scales@NRCan-RNCan.gc.ca>, "'rosalind.wall@dft.gsi.gov.uk'" <rosalind.wall@dft.gsi.gov.uk>, "'Bob.Moran@Olev.gsi.gov.uk'" <Bob.Moran@Olev.gsi.gov.uk>, "'christopher.snary@decc.gsi.gov.uk'" <christopher.snary@decc.gsi.gov.uk>
Cc: "'Benoit.LEBOT@ipeec.org'" <Benoit.LEBOT@ipeec.org>, "'Zoe.LAGARDE@IPEEC.org'" <Zoe.LAGARDE@IPEEC.org>, "'drew@theicct.org'" <drew@theicct.org>, "'s.watson@fiafoundation.org'" <s.watson@fiafoundation.org>, "Welsh, Kevin W" <Kevin_W_Welsh@nsc.eop.gov>
Subject: RE: IPEEC Transport Task Group - first call of 2016 January 20th

Dear all,

As a reminder, we will have the first conference call of the IPEEC Transport Task Group at 8:00am Eastern Time / 1:00pm London time / 9:00pm Beijing time on January 20th. Please connect to this line:

Non-Responsive

Access code: **Non-Responsive**

The agenda will be as follows:

- Introductions (10 minutes)

- Review of 2015 achievements and recommendations (5 minutes)

- Overview of 2016 workplan (10 minutes)

- Discussion of 2016 workplan (10 minutes)

- "Deep dive" discussion on compliance and enforcement (25 minutes, led by Drew Kodjak of ICCT)

Please see attached two slide decks – one on the general progress of the TTG, and one for the "deep dive."

Best wishes,

Vance

From: Wagner, David Vance
Sent: Wednesday, January 13, 2016 12:29 PM
Subject: IPEEC Transport Task Group - first call of 2016 January 20th

Dear Members of the IPEEC Transport Task Group,

Happy New Year! With this e-mail, I am pleased to kick off the 2016 work of the Transport Task Group.

As you all know, 2015 was the inaugural year of the TTG. It was a strong year:

•□□□□□□□ We formally established the TTG (currently with 13 participating countries, a Steering Committee of 4 countries (the U.S., the EU, Mexico, and Italy), and 2 implementing organizations (the ICCT and GFEI));

•□□□□□□□ We published a foundational briefing paper ("Policies to reduce fuel consumption, air pollution, and carbon emissions from vehicles in G20 nations") and an LDV issue paper ("LDV fuel economy and the G20");

•□□□□□□□ We contributed key Outcomes and Recommendations to the "Report on the G20 Energy Efficiency Action Plan – Voluntary Collaboration on Energy Efficiency";

•□□□□□□□ Our work was highlighted in the G20 Energy Ministers' Communique in October as well as the G20 Leaders' Communique in November;

•□□□□□□□ And we held a number of exchanges and discussions to share experience on reducing the energy and environmental impacts of motor vehicles, especially heavy-duty vehicles.

With this strong foundation, the TTG enters 2016 with tremendous momentum. But of course, further success this year will depend on the active participation and engagement of all of you, our participating members. With this in mind, I would like to invite you all to join a **2016 TTG kick-off conference call next Wednesday, January 20th, at 8:00am Eastern Time / 1:00pm London Time / 9:00pm Beijing Time**, with this dial-in info:

Non-Responsive

Access code: **Non-Responsive**

During the call, we will discuss the TTG work plan for the year, timeline, and next steps. This will be the first of **monthly calls** for the TTG this year. At each call, in addition to discussing the ongoing work of the TTG, we will feature a "deep-dive"

discussion on a specific topic. The first "deep-dive" topic for next week will be **Compliance and Enforcement**. Drew Kodjak, Executive Director of the ICCT, will share perspectives on the importance and elements of strong compliance programs, in light of the recent Volkswagen diesel emissions scandal.

Please let me know if you plan to join the call next week. I will send additional prep materials, including an agenda and a slide deck, early next week.

I am looking forward to another strong year working closely with you all to advance the work of the Transport Task Group.

Best wishes,

Vance Wagner

TTG Lead for the United States

David Vance Wagner
China Counsellor
Office of the Special Envoy for Climate Change
U.S. Department of State

202-647-9678 (office)
202-341-4983 (mobile)

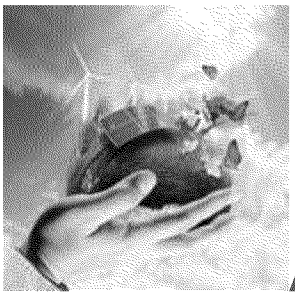
This email is UNCLASSIFIED.

<IPEEC Transport Task Group - January 2016 call.pdf>

<ICCT Compliance Principles G20 (Jan 2016).pdf>

To: Allnutt, David[Allnutt.David@epa.gov]; Anderson, Lea[anderson.lea@epa.gov]; Anderson, Steve[Anderson.Steve@epa.gov]; Aranda, Amber[aranda.amber@epa.gov]; Averback, Jonathan[Averback.Jonathan@epa.gov]; Belser, Evan[Belser.Evan@epa.gov]; Bianco, Karen[Bianco.Karen@epa.gov]; Bogoshian, Matthew[Bogoshian.Matt@epa.gov]; Branning, Amy[Branning.Amy@epa.gov]; Bunker, Byron[bunker.byron@epa.gov]; Chapman, Apple[Chapman.Apple@epa.gov]; Choi, Jake[Choi.Jake@epa.gov]; Cozad, David[Cozad.David@epa.gov]; Crum, Lynda[Crum.Lynda@epa.gov]; Crystal, Roy[crystal.roy@epa.gov]; Davis, Julian[davis.julian@epa.gov]; Dickinson, David[Dickinson.David@epa.gov]; Dierker, Carl[Dierker.Carl@epa.gov]; Dolph, Becky[Dolph.Becky@epa.gov]; Doster, Brian[Doster.Brian@epa.gov]; Dubey, Susmita[dubey.susmita@epa.gov]; Dubois, Roland[Dubois.Roland@epa.gov]; Frey, Bert[frey.bertram@epa.gov]; Froikin, Sara[Froikin.Sara@epa.gov]; Giles-AA, Cynthia[Giles-AA.Cynthia@epa.gov]; Graham, Cheryl[Graham.Cheryl@epa.gov]; Harrison, Ben[Harrison.Ben@epa.gov]; Hoffman, Howard[hoffman.howard@epa.gov]; Hogan, Stephanie[Hogan.Stephanie@epa.gov]; Holmes, Carol[Holmes.Carol@epa.gov]; Igoe, Sheila[Igoe.Sheila@epa.gov]; Jordan, Scott[Jordan.Scott@epa.gov]; Kaplan, Robert[kaplan.robert@epa.gov]; Kataoka, Mark[Kataoka.Mark@epa.gov]; Klepp, Robert[Klepp.Robert@epa.gov]; Knapp, Kristien[Knapp.Kristien@epa.gov]; Lee, Michael[lee.michaelg@epa.gov]; Lovett, Lauren[Lovett.Lauren@epa.gov]; Mackey, Cyndy[Mackey.Cyndy@epa.gov]; Manners, Mary[manners.mary@epa.gov]; Marks, Matthew[Marks.Matthew@epa.gov]; Matthews, Julie[Matthews.Juliane@epa.gov]; McConkey, Diane[Mcconkey.Diane@epa.gov]; Mclean, Kevin[Mclean.Kevin@epa.gov]; Moore, Bruce[Moore.Bruce@epa.gov]; Morgan, Jeanette[Morgan.Jeanette@epa.gov]; Muller, Sheldon[Muller.Sheldon@epa.gov]; Niebling, William[Niebling.William@epa.gov]; Nguyen, Quoc[Nguyen.Quoc@epa.gov]; Adair, Jocelyn[Adair.Jocelyn@epa.gov]; Odendahl, Steve[Odendahl.Steve@epa.gov]; Okoye, Winifred[Okoye.Winifred@epa.gov]; Orlin, David[Orlin.David@epa.gov]; Pastorkovich, Anne-Marie[Pastorkovich.Anne-Marie@epa.gov]; Roberts, Martha[Roberts.Martha@epa.gov]; Rodman, Sonja[Rodman.Sonja@epa.gov]; Rowland, John[Rowland.John@epa.gov]; Schaaf, Eric[Schaaf.Eric@epa.gov]; Schmidt, Lorie[Schmidt.Lorie@epa.gov]; Senn, John[Senn.John@epa.gov]; Shenkman, Ethan[Shenkman.Ethan@epa.gov]; Silverman, Steven[silverman.steven@epa.gov]; Smith, Kristi[Smith.Kristi@epa.gov]; Snyder, Doug[Snyder.Doug@epa.gov]; Srinivasan, Gautam[Srinivasan.Gautam@epa.gov]; Stahle, Susan[Stahle.Susan@epa.gov]; Starfield, Lawrence[Starfield.Lawrence@epa.gov]; Stern, Allyn[Stern.Allyn@epa.gov]; Tate, Ragan[Tate.Ragan@epa.gov]; Thrift, Mike[thrift.mike@epa.gov]; Tierney, Jan[tierney.jan@epa.gov]; Ting, Kaytrue[Ting.Kaytrue@epa.gov]; Tsirigotis, Peter[Tsirigotis.Peter@epa.gov]; Versace, Paul[Versace.Paul@epa.gov]; Vetter, Rick[Vetter.Rick@epa.gov]; Walker, Mike[Walker.Mike@epa.gov]; Ward, W. Robert[Ward.Robert@epa.gov]; Werner, Jacqueline[Werner.Jacqueline@epa.gov]; Wilcox, Geoffrey[wilcox.geoffrey@epa.gov]; Williams, Brent[Williams.Brent@epa.gov]; Williams, Melina[Williams.Melina@epa.gov]; Williamson, Timothy[Williamson.Tim@epa.gov]; Zenick, Elliott[Zenick.Elliott@epa.gov]; Wills, Jennifer[Wills.Jennifer@epa.gov]; Conger, Nick[Conger.Nick@epa.gov]; Blake, Wendy[Blake.Wendy@epa.gov]; Schramm, Daniel[Schramm.Daniel@epa.gov]; Vergeront, Julie[Vergeront.Julie@epa.gov]; Tozzi, Lauren[Tozzi.Lauren@epa.gov]; Coursen, David[Coursen.David@epa.gov]; Pilchen, Zach[Pilchen.Zach@epa.gov]; Skinner-Thompson, Jonathan[Skinner-Thompson.Jonathan@epa.gov]; Vijayan, Abi[Vijayan.Abi@epa.gov]; Roder, Aileen[Roder.Aileen@epa.gov]; Walker, Denise[Walker.Denise@epa.gov]; Caballero, Kathryn[Caballero.Kathryn@epa.gov]; Thompson, Christopher[Thompson.Christopher@epa.gov]; Williams, Christopher[Williams.Christopher@epa.gov]; Matthew, Dayna[Matthew.Dayna@epa.gov]; Reid, Lauren[Reid.Lauren@epa.gov]; Hammons, Jeffrey[Hammons.Jeffrey@epa.gov]; Morris, Rachel[Morris.Rachel@epa.gov]; Nguyen, DucH[Nguyen.DucH@epa.gov]; Jordan, Deborah[Jordan.Deborah@epa.gov]; Charlton, Tom[Charlton.Tom@epa.gov]; Kulschinsky, Edward[Kulschinsky.Edward@epa.gov]; Portmess, Jessica[Portmess.Jessica@epa.gov]; Kaminer, Joan[Kaminer.Joan@epa.gov]; Kryman, Matthew[Kryman.Matthew@epa.gov]; Greenglass, Nora[Greenglass.Nora@epa.gov]; Spina, Providence[Spina.Providence@epa.gov]; Firestine, Natalie[firestine.natalie@epa.gov]; Bond, Alexander[Bond.Alexander@epa.gov]; Palmer, Karen[Palmer.Karen@epa.gov]; Seidman, Emily[seidman.emily@epa.gov]; Conrad, Daniel[conrad.daniel@epa.gov]

From: Turley, Jennifer
Sent: Thur 1/21/2016 3:50:58 PM
Subject: Air & Radiation Law News for January 21, 2016



Air & Radiation Law News

for January 21, 2016

Bloomberg BNA **Daily Environment Report™**

Air Pollution

China Vehicle Emissions Standards Move Forward

China expects to fully implement its new China V vehicle emissions standards for all gasoline and diesel-powered passenger vehicles and heavy-duty diesel vehicles sold, imported or newly registered by the start of 2018, China's State...

Air Pollution

European Carmaker Fiat Has U.S. Emissions Problem of Its Own

Lost amid the intense scrutiny of emissions tests at Volkswagen AG and Renault SA is the fact that another European automotive powerhouse, Fiat Chrysler Automobiles NV, is also in a tight spot with regulators....

Air Pollution

NAFTA Body Issues Black Carbon Emissions Paper

The Commission for Environmental Cooperation has published recommendations on estimating black carbon emissions in Canada, the U.S. and Mexico. The guidelines on best practices for building emissions inventories are meant to promote...

Air Pollution

New Mexico Sues VW, Audi Over Diesel-Emissions Scandal

New Mexico filed a lawsuit against Volkswagen AG, Porsche AG, Audi AG and their U.S. subsidiaries alleging violations of the state's Air Quality Control Act and the Unfair Trade Practices Act, Attorney General Hector Balderas (D) announced...

Air Pollution

Southern California Panel Postpones Decision on Gas Leak

A quasi-judicial panel Jan. 20 postponed a decision on a proposed order to address the ongoing leak at Southern California Gas Co.'s underground natural gas storage field near Los Angeles....

Climate Change

Hydropower Needed for Massachusetts Climate Goals

A 25 percent reduction in greenhouse gas emissions by 2020 is an attainable goal for Massachusetts as long as the state follows the path laid out in a Jan. 19 update to the Massachusetts Clean Energy and Climate Plan, state officials said. The...

Climate Change

World Shattered Heat Record in 2015

The year 2015 was by far the world's warmest on record, according to federal data released Jan. 20. ...

Energy

Billions at Stake in Supreme Court Power Market Fight

Power generators may see billions of dollars in additional revenue should the U.S. Supreme Court strike down a federal rule that pays factories and offices to dim their lights when energy is most needed....

Energy

China Emissions From Power Fell in 2015 as Coal Curbed

China's emissions of climate-warming carbon dioxide produced as a result of using coal for electricity generation probably fell 2 percent in 2015 as a push by the world's most populous nation to tackle climate change resulted...

Energy

Energy Bill Expected on Senate Floor Next Week: Murkowski

A broad energy bill that includes language to expedite the federal approval process for liquefied natural gas exports is expected to be brought to the floor "first thing" the week of Jan. 25, Sen. Lisa Murkowski (R-Alaska), the chairman...

Energy

FERC Offers Guidance on Clean Power Plan Modeling

The Federal Energy Regulatory Commission issued guiding principles in a white paper to help regional transmission entities, electric utilities and other stakeholders as they analyze state and federal efforts to comply with the Clean Power...

Energy

India OKs Power Plants to Sell Idle Capacity as Usage Drops

Indian power producers will be allowed to sell spare capacity via electricity exchanges as part of a revamp that seek to improve affordability, reduce litigation and revive investments....

Hazmat Transport

Hazmat Rail Civil Penalties Up 22 Percent in 2015

The Federal Railroad Administration issued during fiscal year 2015 orders or reached agreements requiring $3.9 million in civil penalties for hazardous materials transportation laws violations, according to a report released by the agency...

Oil & Gas

Bankrupt Oil and Gas Drillers Can't Give Assets Away

Oil is in free fall, and Terry Clark couldn't be happier....

Oil & Gas

Pennsylvania Targets New, Old Wells to Cut Methane

Pennsylvania intends to become a national leader in reducing methane emissions from oil and gas development and has begun to formulate new regulations to cut methane emissions in the commonwealth by 40 percent, environmental regulators...

Oil & Gas

Upcoming Interior Department Proposal to Pare Methane Leaks

A massive natural gas leak in Southern California that has forced thousands of residents from their homes is giving momentum to the Obama administration's plan to clamp down on methane emissions from oil and natural gas wells....

Vehicle Fuels

China Issues E-Vehicle Infrastructure Policy

China's Ministry of Finance released details of a plan to increase subsidies to build charging stations for hybrid and electric plug-in vehicles....

Vehicle Fuels

Senate Committee Plans Renewable Fuel Hearing

The Senate Environment and Public Works Committee scheduled a Feb. 24 hearing on the renewable fuel standard, a Republican committee aide told Bloomberg BNA. Officials from the Environmental Protection Agency and the Energy Information...

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an online news service from the publishers of Inside EPA

Inside EPA's **Weekly Report**, 01/22/2016

http://insideepa.com/newsletters/inside-epa

Latest News

Advocates Seek Broader EPA Methane Drilling NSPS, Eye Existing Sources

Environmentalists are urging EPA to expand the scope of its proposed first-time methane rule for new oil and gas drilling to include additional requirements such as new leak detection and repair (LDAR) and controls for pneumatic controllers, while also calling on the agency to craft similar methane limits for existing drilling sources.

OMB Agrees To Meet With Environmentalists On Draft Radiological Guide

The White House Office of Management & Budget (OMB) has agreed to hear concerns from environmental groups over draft drinking water amendments to EPA's protective action guidelines for radiological emergencies, which are currently under review by OMB but have yet to be formally proposed.

News Briefs

House Energy Panel Targets EPA Emissions Rules

The House Energy & Commerce Committee's energy and power panel will hold a hearing Jan. 26 to debate two Republican bills aimed at easing and delaying the impact of EPA regulations on coal waste-burning utilities and the brick manufacturing industry, which GOP lawmakers say are "overly burdensome" regulations.

Greenwire

CLIMATE:

2015 smashed records, but 2016 will be hotter still -- scientists

Emily Yehle, E&E reporter

Published: Wednesday, January 20, 2016

Last year was the world's warmest year ever recorded, beating out 2014 in average temperatures over land and ocean surfaces, according to both NASA and the National Oceanic and Atmospheric Administration.

Federal scientists announced the news this morning, marking the second year in a row that broke temperature records stretching back to 1880. It was widely expected and in line with NOAA's announcement earlier this month that 2015 was the second-warmest year for the United States (*Greenwire*, Jan. 7).

A strong El Niño pushed temperatures particularly high at the tail end of the year, contributing to an unprecedentedly warm December. But on a call with reporters today, NOAA and NASA scientists emphasized that 2015 would have broken records even without the "El Niño assist."

"Even without El Niño, this would have been the warmest year on record. We're really looking at a long-term trend," said Gavin Schmidt, director of NASA's Goddard Institute for Space Studies. "This is really just a symptom of this long-term trend."

The year was significantly warmer than 2014, the previous record holder, with the average temperature across global land and ocean surfaces 1.63 degrees Fahrenheit above the 20th-century average. In 2014, that number was 1.24 F.

December broke its own records, reaching 2 F above the 20th-century average. That's the first time in 137 years any month has departed so far from the average.

The bottom line: Both NOAA and NASA are "virtually certain" that the world experienced its hottest year in 2015.

Schmidt and Tom Karl, director of NOAA's National Centers for Environmental Information, also predicted that 2016 would be even hotter.

"I think probably both Gavin and I would say the odds favor 2016," Karl said. "If you were going to be betting, you would bet that it would be warmer than 2015."

2015 also marked the first time the temperature was 1 degree Celsius above the 19th-century average (based on measurements from 1880 to 1900). That is a significant milestone at a time when world leaders aim to limit global temperatures to 2 C above preindustrial levels, as outlined in the recent Paris accord.

Since 1970, the world has warmed by about 0.15 C a decade, according to both NOAA and NASA data. The world is already seeing the impacts of global warming, and those impacts are just going to get clearer, Schmidt said.

"There has to be a sustained discourse and monitoring of the situation from everybody for this problem to get under control," Schmidt said. "It's really something that depends on the long-term trends and our long-term ability to maintain focus on this issue."

ENERGY POLICY:

Industry backs Senate bill's efficiency provisions

Geof Koss, E&E reporter

Published: Wednesday, January 20, 2016

Business interests are urging Senate leaders to bring the Energy and Natural Resources Committee's bipartisan energy bill to the floor for a vote, citing the measure's efficiency provisions as an economic boon.

In a letter to Majority Leader Mitch McConnell (R-Ky.) and Minority Leader Harry Reid (D-Nev.), the National Association of Manufacturers, U.S. Chamber of Commerce, American Chemistry Council and several other companies outline a number of efficiency provisions in the bill (S. 2012) they call a "win-win approach."

"We support low to no-cost, no-mandate bills that advance energy efficiency, while preserving the critical role of government oversight," the coalition wrote today. "American taxpayers save money on their energy bills and businesses thrive when we reduce regulatory burdens, increase transparency, and focus on the federal government as a first mover."

Specifically, the letter lauds the inclusion of provisions from the long-stalled efficiency bill championed by Sens. Rob Portman (R-Ohio) and Jeanne Shaheen (D-N.H.).

"Some of the sections we are most enthusiastic about include the federal energy related provisions and the building codes section, which was developed through a bipartisan, transparent process and does not include state mandates," they wrote. "We urge lawmakers to retain the current language supporting strong, updated model building energy codes."

The underlying bill, which also includes sections to boost renewables, energy infrastructure and natural gas exports, may be the Senate's next business after the chamber votes this afternoon on a procedural motion on a bill to impose new screening procedures on Iraqi and Syrian refugees.

Senators yesterday indicated they're already considering amendments to the energy bill (*E&E Daily*, Jan. 20).

But the Senate first has to determine whether to debate the refugee bill, which is opposed by the White House and many Democrats.

Reid today signaled Democrats would be willing to begin debate -- if Republicans agree to four politically perilous amendment votes.

The first would "denounce Donald Trump's reprehensible proposal to impose a religious test on admission into the United States," while the remainder would bar people on the no-fly list from being able to purchase firearms and increase funds for local law enforcement anti-terror efforts and airport security, along with a Democratic "anti-ISIS security bill."

"Democrats are committed to opposing the vile views of Donald Trump and providing the American people with solutions that make our nation safer," Reid said in floor remarks this morning. "And we think it's past time for the Senate to vote on these policies."

Reid also noted McConnell's frequent pledge to allow an open amendment process for the chamber.

McConnell later said he would speak with Reid "about a way forward on the bill," which is slated for a procedural vote at 2:30 p.m.

CLIMATE:

Activists press admin to crack down on oil and gas leasing

Amanda Reilly, E&E reporter

Published: Wednesday, January 20, 2016

Climate activists are pushing for changes to the federal oil and gas leasing program in the wake of the Obama administration's decision to freeze and scrutinize future coal leases.

The activists, who are part of a broader "Keep It in the Ground" movement, characterized the Obama administration's Friday announcement as a big step forward but said the Department of the Interior must also address climate impacts of its oil and gas program.

The group WildEarth Guardians, long a leader in the fight against coal, today petitioned DOI to put in place a similar moratorium on oil and gas leasing on federal lands.

Several organizations this week also vowed to protest every local oil and gas lease sale scheduled for this year by the Bureau of Land Management.

"Even more so than the coal program, it's really time that they step up and look at the full climate impacts for the oil and gas program," said Tim Ream, climate and energy campaign director at WildEarth Guardians.

"And we think that the approach the administration is taking," Ream said, "that's exactly the kind of approach that we've been charting out for them to take on onshore oil and gas."

On Friday, the Obama administration froze the leasing of federally owned coal to mining companies pending the completion of a programmatic environmental impact statement to analyze how the administration awards coal leases and how environmental and public health concerns factor into the decisionmaking process.

The environmentalists calling for Obama to extend that decision to oil and gas leasing activities are part of the growing "Keep It in the Ground" movement, which aims to halt all oil, gas and coal extraction on public lands in the United States.

While activists have been working the court system for years to inject climate change into leasing decisions on public lands, the broader movement went mainstream only last fall.

Climate activists who had for years been fighting the Keystone XL pipeline from Canada turned to Keep It in the Ground once Obama rejected the controversial project.

"Ever since Keystone, the movement's been moving from iconic fights to larger policy," said Jason Kowalski, policy director for 350.org.

"The keep-it-in-the-ground mantra was there during the Keystone fight. We were only applying it to one pipeline, but we knew that fight wasn't just about one pipeline," he said.

Movement 'extreme' -- industry

Energy industry leaders have called the movement "extreme" and warned the federal government stands to lose a revenue stream worth billions of dollars. The National Mining Association last week said that the Obama administration's decision to halt coal leasing "defies credulity."

Republicans have vowed to fight the coal decision. Senate Energy and Natural Resources Chairwoman Lisa Murkowski (R-Alaska) also yesterday slammed the broader Keep It in the Ground movement.

"Think about what that says for not only energy security but national security," Murkowski said. "When you think about your access to energy resources and your competitiveness worldwide, I am concerned our policies would take offline our resources that allow us to be in the game."

But environmental groups say fossil fuels owned by the federal government must remain in the ground for Obama to cement his climate legacy and for the United States to do its part under the international climate deal negotiated in Paris last month.

The agreement called on nations to limit global warming to below 2 degrees Celsius and to pursue efforts to limit warming to 1.5 C.

A study released last year by the groups Friends of the Earth and the Center for Biological Diversity said ending leasing on taxpayer-owned lands and offshore areas would prevent the release of 450 billion tons of carbon pollution.

"Addressing both coal, and oil and gas, would really deliver on his promise to be the climate president and leave behind a strong climate legacy -- moreso than anything else he has done," said Marissa Knodel, climate change campaigner at Friends of the Earth. "If he wants to make good on the climate mitigation targets, the best way to do that is to reform how we lease publicly."

Randi Spivak, public lands program director at the Center for Biological Diversity, said about the recent announcement: "It's a big step forward in terms of hopefully keeping a large amount of coal in the ground -- but to be clear, it doesn't end the coal program."

Spivak said, "The federal fossil fuel program still contributes a significant amount of carbon pollution that's incompatible with meeting the president's climate goals, and we think oil and gas must be looked at next."

'Climate change rationale'

Today's 40-page petition by WildEarth Guardians argues that the "climate change rationale" for last week's coal decision "applies with an equally great urgency" to federal oil and gas leasing. DOI has never conducted a programmatic environmental impact statement of the oil and gas leasing program.

"With today's filing, we are asking the Department of the Interior to live up to its legal obligation to study the environmental and social impacts of its oil and gas leasing program," said Aaron Adams, principal author of the petition and certified law student with the University of California, Irvine, School of Law's Environmental Law Clinic. "This one's a no-brainer."

Ream said movement sympathizers would continue protesting every BLM oil and gas lease sale this year after successfully getting the agency to postpone three such sales.

"That is something that we are going to do this year," he said, "and we're going to do every time this year that the administration tries to lease more oil and gas and goes across that red line that was drawn in Paris."

Activists have rallied around legislation introduced by Sens. Jeff Merkley (D-Ore.) and Bernie Sanders (I-Vt.), which would stop new leases and the renewal of all nonproducing leases for fossil fuels on federal lands, as well as halt offshore leasing activities.

Merkley said he supported efforts to inject climate change into oil and gas leasing decisions. "I would want for them to continue exploring similar parallel efforts," Merkley said of the administration.

"Certainly the same logic applies to coal leases, in terms of aggravating global warming and in terms of our partnering with the world to take on this challenge, applies to other fossil fuels," he said.

Environmentalists point to a paragraph in Obama's recent State of the Union speech that they believe signals that the administration will take up oil and gas leasing before he leaves office.

"I'm going to push to change the way we manage our oil and coal resources," the president said in last week's speech, "so that they better reflect the costs they impose on taxpayers and our planet."

Ream said he had "no doubt" that the president "very consciously used oil and coal in the same phrase."

The Interior Department today indicated that a moratorium on oil and gas leasing similar to coal was unlikely at this point.

In an interview yesterday, Murkowski expressed concern that the climate movement would gain more of a foothold. "We have just started to see first oil out of the National Petroleum Reserve in Alaska," she said. "It would be a shame, it would be a travesty if we were to see a moratorium put on federal lands."

Reporter Dylan Brown contributed.

NUCLEAR POLICY:

S.C. delegation demands MOX funding during site visit

Hannah Hess, E&E reporter

Published: Wednesday, January 20, 2016

Four congressmen yesterday toured the nuclear fuel facility at the Savannah River Site and put out a call for President Obama to fund it in his fiscal 2017 budget request due out next month.

Rep. Joe Wilson (R-S.C.) and his colleagues have challenged the Department of Energy's release of a report by the Aerospace Corp. that projected it would cost nearly $50 billion to finish the Mixed Oxide Fuel Fabrication Facility, or MOX Facility, instead of the $3.3 billion projected by the current builder.

"Discrepancies in data have overstated the projected costs to complete the MOX Facility at the same time they are understating how much of the facility is complete," Wilson said yesterday of the long-delayed project, which broke ground in 2007.

The study, which Sens. Lindsey Graham (R-S.C.) and Tim Scott (R-S.C.) have also questioned, claims the facility would take 30 years to finish, compared with a nine-year timetable provided by the contractor. Critics suggested that the revised numbers were intended to influence the appropriations process and undercut MOX funding. The lawmakers demanded an in-depth briefing from Aerospace on the findings.

"The best way to assess level of completion is to see it with your own eyes, and that's why I invited my colleagues in the House to see the importance of the MOX Facility themselves," Wilson said after the tour.

He was joined by Reps. Rick Allen (R-Ga.) and Donald Norcross (D-N.J.) and fellow South Carolina Republican Rep. Mick Mulvaney.

Last year's omnibus spending deal appropriated $340 million for MOX site construction in the current fiscal year and directed DOE to oversee an analysis of downblending, a strategy to dilute the plutonium. The congressmen visited K-Area to review the potential technology.

"It is a bipartisan concern that the shocking example of Yucca Mountain could leave South Carolina as a permanent repository of high-level weapons-grade plutonium," Wilson said, referring to the shuttered nuclear waste storage facility in Nevada.

On Feb. 9, the White House will unveil its fiscal 2017 budget proposal, which is expected to include language on MOX. The administration could call for a halt on construction, as it did in the fiscal 2015 budget request (*Greenwire*, March 4, 2014). DOE later revised the decision.

Senior diplomats and arms negotiators recently urged Obama to shut down the MOX site, citing costs and a potential threat to nonproliferation efforts.

But the congressmen reject that analysis.

"As the only real solution I see for our military-grade plutonium, the MOX project is vital," Allen stated. "By turning these materials into commercial fuel, we will be able to use the finished products to produce clean energy to power our country and economy."

TRANSPORTATION:

Judge tosses greens' suit seeking to block Ala. highway

Sean Reilly, E&E reporter

Published: Wednesday, January 20, 2016

Article updated at 3:18 p.m. EST.

A federal judge in Alabama has thrown out a lawsuit contesting one of the nation's biggest and most expensive highway projects on environmental grounds.

In a lengthy ruling yesterday, U.S. District Judge William Keith Watkins granted motions for summary judgment filed by the Alabama Department of Transportation and two federal agencies in response to the suit from Black Warrior Riverkeeper challenging the review process for the Northern Beltline, a planned 52-mile interstate bypass around the city of Birmingham.

Watkins had last year rebuffed a bid from Beltline foes for a preliminary injunction to block the start of construction on the project, citing both the proposed highway's potential to spur growth and the state's effort to reduce the impact of construction on local waterways.

In a news release today, opponents said they are considering their options for an appeal of the latest ruling.

"We are deeply disappointed in the decision allowing this project's first phase to move forward without further review," said Gil Rogers, a senior attorney with the Southern Environmental Law Center, which is representing Black Warrior Riverkeeper in the suit. In giving a green light to the Beltline, Rogers said, state and federal agencies "cut corners" to benefit "a few wealthy landowners and corporations ... without fully analyzing the environmental and economic costs, impacts or alternatives."

The Alabama Department of Transportation will issue a statement on the decision later today, a spokesman said via email in response to a request for comment from *Greenwire*. The Beltline, which has an estimated $5.3 billion price tag, is scheduled for completion in 2054, according to projections posted on a state website.

While the planned highway enjoys staunch backing from Alabama politicians and Birmingham business leaders, critics contend that influential businesses that own land around the proposed route have pushed the project forward in hopes of increasing their property's value (*Greenwire*, Dec. 23, 2015). Beltline supporters counter that the road will create thousands of jobs, through both construction and follow-on economic development.

The Riverkeeper litigation combines two suits, one filed in 2011 alleging that the state failed to comply with the National Environmental Policy Act's requirements to provide a full overview of the road's possible effects and a second from 2013 challenging the Army Corps of Engineers' decision to grant the project a Section 404 permit that, under the Clean Water Act, regulates the discharge of dredge or fill materials into streams and wetlands.

In yesterday's ruling, Watkins also granted a summary judgement motion from the corps and the Federal Highway Administration.

AIR POLLUTION:

N.M. sues Volkswagen over emissions scandal

Published: Wednesday, January 20, 2016

New Mexico Attorney General Hector Balderas (D) late yesterday filed a lawsuit in state district court over the Volkswagen AG emissions cheating scandal that has affected millions of cars globally.

The Democrat alleges in the lawsuit that Volkswagen and its subsidiaries violated New Mexico's air quality regulations by installing software that allowed cars to fraudulently pass government pollution control tests. Volkswagen has admitted to installing the so-called defeat devices.

The U.S. Department of Justice sued Volkswagen earlier this month on behalf of U.S. EPA in a move that could force the automaker to pay more than $20 billion in fines under the Clean Air Act (*E&ENews PM*, Jan. 4). And the German automaker faces hundreds of class-action lawsuits from Volkswagen owners.

The company has hired Kenneth Feinberg -- the lawyer who oversaw payouts to victims of the 9/11 attacks, the BP PLC oil spill in the Gulf of Mexico and the Boston Marathon bombings -- to handle claims related to the emissions scandal (*ClimateWire*, Dec. 18, 2015; AP/*Centre* [Pa.] *Daily Times*, Jan. 20). -- **KJH**

SOLAR:

Study probes why some installations are much cheaper than others

Christa Marshall, E&E reporter

Published: Wednesday, January 20, 2016

Lawrence Berkeley National Laboratory researchers are offering answers to a deceptively simple question: What makes solar arrays installed on homes and small businesses super-cheap?

The team examined the key drivers of inexpensive small photovoltaic systems, or those making up the bottom 10 percent of prices nationwide, as part of an examination of wide disparities in solar pricing across the country. It found that such low-priced systems are more common in certain states like Maine, are more prevalent in local markets with fewer active installers and tend to be customer-owned rather than leased, among other factors.

While previous analyses of solar costs often looked at average prices, the report is unique for examining the drivers of the cheapest of the cheap, according to experts.

"This is important because government policies should be aimed at 'moving the curve' -- at changing the future of the solar market ... rather than static changes to the current solar market," said Erin Baker, a professor of mechanical and industrial engineering at the University of Massachusetts, Amherst, who did not participate in the research. "By looking at what leads to very low-cost systems, they are starting to understand the drivers that will lead to moving the curve."

The Lawrence Berkeley team considered the cost of small PV systems ranging in size from 1 to 15 kilowatts. It considered price in dollars per watt rather than the overall solar cost.

The cheapest systems tended to be larger because of the benefits of economies of scale and made up of cheaper, less-efficient components, according to Ryan Wiser, a senior scientist at the Lawrence Berkeley lab and co-author of the paper.

They also tended to be installed by companies that concentrate in a certain county. "This is suggestive of a 'learning by doing' effect, or the concept of economies that occur as a result of having a more streamlined supply chain able to deliver in that local, county-level market," Wiser said.

Commercial installations on small businesses also were typically cheaper than residential systems. "I suspect that is largely because commercial entities will spend a lot more time comparison shopping," he said.

Low-priced systems are less likely to use expensive components like "tracking, building-integrated PV modules, micro-inverters, and batteries," study lead author Greg Nemet of the University of Wisconsin, Madison, added in a statement.

There were wide disparities from state to state. Whereas 5 percent of studied PV systems in California were "low priced," for example, the proportion was about 51 percent in Maine and 34 percent in Arizona. Florida and New Hampshire also saw high percentages of low-priced systems.

Wiser said there is no definitive answer as to why there are such huge price spans across the country.

"There must be an answer to why, I just don't know what it is," he said, suggesting the need for additional research on factors such as state incentives that may discourage installers from offering rock-bottom prices.

When asked about policy implications, Wiser noted that many states directly or indirectly restrict PV

system sizes, even though the study shows this has the effect of increasing prices on a cost-per-watt basis.

"On the other hand, policy action that can encourage local installation experience might help drive a higher proportion of low-priced PV systems given the relationship between local installation experience and low-priced PV systems," he said.

The report conclusions seem to differ somewhat from earlier work that found that factors like PV systems installed in new subdivisions tend to be cheaper than retrofits. However, many of those earlier studies considered average prices, not extremely low ones, Wiser noted.

The paper is part of a broader multiyear series examining solar prices. The Lawrence Berkeley lab team collaborated with the University of Wisconsin, Madison; Yale University; the University of Texas, Austin; and the National Renewable Energy Laboratory.

FEDERAL WORKFORCE:

Obama may require contractors to disclose campaign spending

Published: Wednesday, January 20, 2016

President Obama is said to be considering an executive order to require federal contractors to disclose their campaign contributions.

Activists have long called for the move, which they say will reduce the influence of "dark money" that can be funneled through various umbrella groups to conceal its source.

Such an order could prompt companies to rethink some contributions if they know the public will learn of them. The advocacy group Public Citizen estimated last year the order could apply to 70 percent of all Fortune 100 companies, including Exxon Mobil Corp., Apple Inc. and General Motors Co.

White House spokeswoman Brandi Hoffine declined to discuss the planning.

"While we will continue to examine additional steps we can take to reduce the corrosive influence of money in politics, only Congress can put an end to it," Hoffine said (Julie Hirschfeld Davis, *New York Times*, Jan. 19). **-- SP**

ELECTRIC VEHICLES:

Tesla defends sales model in FTC forum

Ariel Wittenberg, E&E reporter

Published: Wednesday, January 20, 2016

Tesla Motors is unfit for the traditional car dealership sales models in part because of the challenges of marketing electric vehicles, Tesla General Counsel Todd Maron told a Federal Trade Commission workshop yesterday.

The company's "direct distribution" model, which eschews dealerships for manufacturer-run storefronts, is needed to convince drivers to try the new technology, Maron said.

"When new technology comes out, consumers don't go to it, you need to bring it to the consumers," he said, noting that Tesla's stores are placed mostly in shopping malls and other high foot traffic areas. "We are selling a new product with a new technology under a new brand to the public. So it should come as no surprise that the traditional distribution system of dealerships doesn't work for us right now."

There are many aspects of Tesla's business model that make dealerships unrealistic, he said. While dealerships sell inventory off the lot, he said, Tesla's cars are custom-made and are only manufactured after they're ordered.

Most important, Maron said, Tesla is tasked with teaching drivers about electric vehicles before trying to sell them a Tesla -- a job for "true believers."

"Our mission is to educate people, and we are the ones in the best position to do that," he said.

Nearly every state has franchise laws to regulate the business relationships between auto manufacturers and their dealers. But Texas and some others require auto manufacturers to use dealership networks to sell their cars and do not allow them to sell vehicles directly to consumers. The FTC has previously said it opposes those kinds of regulations because they, in effect, ban companies that rely on direct distribution like Tesla and Elio Motors.

Maryann Keller, an attorney who has represented car dealerships in court, argued that requiring automakers to have franchises actually protects consumers by creating competition within brands, which, in turn, can lower prices.

"Same-brand dealerships rigorously compete with each other for the benefit of consumers," Keller said.

Maron refuted that point, calling dealerships "middlemen."

"That's someone else who needs to obtain profit in the process of selling a car," he said. "To say that results in lower prices is counterintuitive to every economic principle that exists."

University of Michigan Law School professor Dan Crane agreed.

"When dealers have gone into court arguing that Tesla shouldn't be able to direct distribute, they say allowing it will lead to 'inequitable prices,'" he said. "What does that mean? It couldn't be that the prices would be too high, because then the dealers would not have legal injury because they would have the competitive edge. It means that direct distribution is a competitive threat to them."

Crane noted that most states with laws prohibiting direct distribution wrote them to protect dealers from having to compete with their own manufacturers, which could easily undercut the price.

"Those concerns have no relevance at all to companies like Tesla and Elio who don't have any dealerships to compete with," he said.

Steven McKelvey, who has represented automobile manufacturers, argued that all automakers should be able to consider switching to a direct distribution model.

While no manufacturer has yet tried to switch from a franchise to a direct distribution model, he said the companies should be allowed to "adapt over time when and to the extent that consumer and market demands require."

"Manufacturers can succeed and thrive only if they are able to provide the products consumers want to buy, where and how they want to buy them," he said.

ELECTRIC VEHICLES:

Plug-in sales fall well short of Obama's goal

Published: Wednesday, January 20, 2016

Billions of dollars in subsidies for electric vehicle manufacturers and customers pushed by President Obama have left the industry far short of a White House goal to have 1 million plug-in electric vehicles on the road by the end of last year.

With gas prices near $2 per gallon, only about 400,000 electric cars are on the road. Even as the industry offers more plug-in models than ever, often at deep discounts through government subsidies, sales fell 6 percent to about 115,000. Sales of more established hybrid vehicles fell 15 percent last year to 384,000, or just 2.2 percent of all vehicle sales.

Obama is expected to discuss the state of the auto industry when he visits the Detroit Auto Show today.

At the show, automakers like General Motors Corp., Ford Motor Co. and Fiat Chrysler Automobiles are all showing off the latest plug-in vehicles, but industry figures know the cars are hard to sell when fuel is so cheap.

"If gasoline was $8 a gallon, consumers would amortize the costs of an electric vehicle pretty quickly," said former GM Vice Chairman Bob Lutz, who led development of the plug-in Chevy Volt. "But at $1.50 a gallon, who is going to be willing to pay an $8,000 or $10,000 premium?" (Shepardson/Woodall, Reuters, Jan. 20). **-- SP**

NATURAL GAS:

Erin Brockovich helps firms line up clients over leaking well

Published: Wednesday, January 20, 2016

In front of a crowd of more than 400 Porter Ranch, Calif., residents, activist Erin Brockovich shared a story about feeling lightheaded only 10 minutes after arriving in the community closest to Southern California Gas Co.'s leaking well.

Brockovich said she saw a doctor who said she had "what they called a chemically induced kind of bronchitis."

The message was clear: If she had become ill so quickly from the ruptured well, the fumes must be harming everyone in the vicinity. Brockovich and the law firm she was advocating for, Weitz & Luxenberg, said residents should be compensated for exposure and urged residents to join their lawsuits against the gas company.

Other law firms are making a similar case to Porter Ranch residents by holding meetings and running advertisments that warn of health risks and decreased property values as a result of the gas leak.

Since the leak was detected at the Aliso Canyon well almost three months ago, about 25 lawsuits have

been filed against the utiltiy and its parent firm, Sempra Energy.

Most of the suits have been filed by residents of Porter Ranch, a community located in the hills of north San Fernando Valley. Legal actions seek compensation for emotional and physical injuries, among other things.

The possible long-term health effects from the leaking natural gas remain unkown, although law firms are not waiting for definite answers before they round up clients.

"When we have information, I want to share it right away," Brockovich said, standing beside a sign with the law firm's new website dedicated to Porter Ranch. "If you don't have information -- and information that is truthful -- you cannot protect what's most valuable and important to you -- that is your health and the welfare of your families and your safety."

Brockovich declined to release medical records about her chemically induced bronchitis to the *Los Angeles Times* (Walton/Sahagun, *Los Angeles Times*, Jan. 19). **-- AK**

OIL AND GAS:

API's Gerard talks future of U.S. industry amid market, regulatory challenges

Published: Wednesday, January 20, 2016

As crude oil prices continue to decline and natural gas faces increasing competition from the clean energy sector, how are the U.S. oil and gas industries adjusting to the changing market dynamics and shifting their long-term plans? During today's OnPoint, Jack Gerard, president and CEO of the American Petroleum Institute, discusses the oil and gas outlook, his organization's focus on natural gas ahead of the elections, and the impact presidential politics could have on industry growth.

Click here to watch today's OnPoint.



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Major electricity providers and some government officials in West Virginia, the state leading the charge against federal climate change regulations, want to use carbon trading to meet their greenhouse gas reduction targets, according to public records obtained by *ClimateWire*.

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Oklahoma oil and gas officials yesterday reached a settlement with SandRidge Energy Inc. to shut down several disposal wells in an earthquake-prone area of the state.

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Ex. 7

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524)'[Markus.Bergmann@AUDI.DE]; 'Naegeli, Matthias (EAMG/1)'[matthias.naegeli@volkswagen.de]
From: NORIYUKI ICHIKAWA
Sent: Fri 1/22/2016 6:44:45 AM
Subject: Invitation for WLTP Phase2
Your Participant to WLTP working items_rev1.xlsx

Dear (possible) members of WLTP IWG,

On behalf of new WLTP leading team, I'm sending this mail to invite you

for your participation to upcoming WLTP phase2 works.

If you want to contribute any particular items listed in the attachment,

please fill out the column "Y" (your name, mail address and participate items)

If necessary, please forward this mail to your colleagues and ask them to reply to leading team

Here are reference documents…

Mandate of WLTP phase2 (subject to change according to last WLTP meeting)

http://www.unece.org/fileadmin/DAM/trans/doc/2015/wp29/WP29-167-29e.pdf

WLTP phase2 organization(slide6)

http://www.unece.org/fileadmin/DAM/trans/doc/2015/wp29grpe/GRPE-72-19.pdf

WLTP phase2 schedule

http://www.unece.org/fileadmin/DAM/trans/doc/2015/wp29grpe/GRPE-72-22.pdf

there is a fatal error, phase2b gtr should be finished by Jan 2019, not 2020.

Best regards,

Noriyuki (Nick) Ichikawa

Co-technical secretary of WLTP IWG

WLTP Phase2 Working Items and Schedule

note) Completion timing of Phase2a may have a chance to be shifted based on each item progress

Working Items					Schedule		
Sub-Group / Task Force	secondary category	brief description	remark	collaboration with EVE	**2017 74th GRPE**		**2019 78th GRPE**
gtr amendment					Phase2a		Phase2b
gtr drafting					✔		✔
CYCLE TF							
Classification&Gear shift	Annex1&2	downscale/gear shift per system power of HEV		✔ Germany/ Korea			✔
Power to mass ratio n_min_drive	Annex1&2	Definition of mass VCC proposal for n_min_drive	carryover from Phase1b		(✔)		
Normalization	Annex7	mainly ICE (remaining item)	EU Electrified vehicle : JAPAN will				✔
Drive Index	Annex6	Collaborate with "Normalization"	re-visit necessity of trace index when apply normalization				✔
Supplemental Test TF							
Boundary Conditions	Annex6		Option				
Low & Realistic Winter Temp		correction of R/L and fuel specification			(✔)		
High Altitude					(✔)		
Auxiliary Devices	Annex6						
MAC		vehicle test ? Component evaluation ? Simplified test ?					✔
others		vehicle test ? Component evaluation ? Simplified test ?	Electrified vehicle : JAPAN will lead				✔
Eco-Innovation	new Annex		i.e. sailing …..				✔
Crankcase & Idle Emissions	new Annex				(✔)		

EVAP TF	new Annex		strong desire to develop gtr by 74th GRPE		✔		
Durability TF	new Annex						
ICE		pollutants only (rapid aging method)			(✔)		
HEV & PEV		pollutants and CO2/FC/Range (study on battery durability)		✔			✔
OBD TF	new Annex						✔
In Service TF	new Annex						
R/L		COP & ISC	bland new				✔
Pollutants			same requirement as current ?				✔
CO2/FC/Range			bland new				✔
E-Lab. SG							
Classification&Gear shift	Annex1&2	method of HEV system power		✔			✔
Normalization	Annex7	HEV study and methodology should be completed					✔
Supplemental Test (low temp./high altitude)	Annex8		apply to EVs ? or not ?		(✔)		
Supplemental Test (auxiliary device)	Annex8	vehicle test ? Component evaluation ? Simplified test ?	effect on EVs parameter	✔			✔
Post processing	Annex7&8		carryover from Phase1b		(✔)		
Durability	new Annex	pollutants and CO2/FC/Range (study on battery durability)		✔			✔
OBD	new Annex	EV Unique issues	take care of unique EVs items only				✔
FCV	Annex8	OVC-FCV Flow Method	ACEA needs		(✔)		
Carryover from Phase1b							
Defeat Device	Definition		handled by Leading Team				✔

	Annex4 items dual-axis roller usage	Annex4	refer to WLTP-13-04e			(✔)		
	Additional Pollutant	Annex5	refer to WLTP-13-04e					✔
	feedback from RRT	all						✔

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'thachapongt@yahoo.com'['thachapongt@yahoo.com']; 'thaniu@jari.or.jp'[thaniu@jari.or.jp];
'thaniu@jari.or.jp'['thaniu@jari.or.jp']; 'thomas.goldbach@gm.com'['thomas.goldbach@gm.com']; 'Thomas
Vogel (thomas.vogel@de.opel.com)'[thomas.vogel@de.opel.com];
'thorsten.leischner@daimler.com'['thorsten.leischner@daimler.com'];
'TKOSMEHL@ford.com'['TKOSMEHL@ford.com']; 'tmayer4@ford.com'['tmayer4@ford.com']; "Yuki Toba'
(toba@jasic.org)'[toba@jasic.org]; 'toba@jasic.org'['toba@jasic.org'];
'toni.lehn@delphi.com'['toni.lehn@delphi.com'];
'Toshihisa_Yamaguchi@hm.honda.co.jp'[Toshihisa_Yamaguchi@hm.honda.co.jp];
'tstoffels@rdw.nl'['tstoffels@rdw.nl']; 'uhlik.krisztian@kti.hu'['uhlik.krisztian@kti.hu'];
'uklein@ford.com'['uklein@ford.com']; 'ulrich.beutke@mtu-online.com'['ulrich.beutke@mtu-online.com'];
'ulrich.gottwick@de.bosch.com'['ulrich.gottwick@de.bosch.com'];
'volker.blum@daimler.com'['volker.blum@daimler.com'];
'volker.rothe@de.opel.com'['volker.rothe@de.opel.com'];
'vustymenko@insat.org.ua'['vustymenko@insat.org.ua']; "wouter.vandermeulen@daimler.com'
(wouter.vandermeulen@daimler.com)'[wouter.vandermeulen@daimler.com];
'Werner.Tober@ifa.tuwien.ac.at'['Werner.Tober@ifa.tuwien.ac.at'];
'william.coleman@volkswagen.de'['william.coleman@volkswagen.de']; 'Wim.van.der.Borght@toyota-
europe.com'['Wim.van.der.Borght@toyota-europe.com'];
'winfried.hartung@de.gm.com'['winfried.hartung@de.gm.com'];
'wolfgang.schindler@avl.com'['wolfgang.schindler@avl.com']; 'wuxf@craes.org.cn'['wuxf@craes.org.cn'];
'y-katsumata@mail.nissan.co.jp'[y-katsumata@mail.nissan.co.jp]; 'y-katsumata@mail.nissan.co.jp'['y-
katsumata@mail.nissan.co.jp']; 'yphou@tongji.edu.cn'['yphou@tongji.edu.cn'];
'yssong@katech.re.kr'['yssong@katech.re.kr']; 'yu.jia@uaes.com'['yu.jia@uaes.com'];
'yuanying@craes.org.cn'['yuanying@craes.org.cn']; 'zisis@auth.gr'['zisis@auth.gr']
Cc: 'Redmann, Stephan'[stephan.redmann@bmvi.bund.de]; 'NTSEL_???
(kawano@ntsel.go.jp)'[kawano@ntsel.go.jp]; 'STA_Ohlund
(per.ohlund@transportstyrelsen.se)'[per.ohlund@transportstyrelsen.se]; 'NTSEL_???
(mizusima@ntsel.go.jp)'[mizusima@ntsel.go.jp]; 'Bergmann, Markus, Dr. (I/EA-
524)'[Markus.Bergmann@AUDI.DE]; 'Naegeli, Matthias (EAMG/1)'[matthias.naegeli@volkswagen.de]
From: NORIYUKI ICHIKAWA
Sent: Fri 1/22/2016 7:20:56 AM
Subject: Invitation for WLTP Phase2
Your Participant to WLTP working items_rev1.xlsx

There was a slight mistake to refer phase2 schedule, sorry for your inconvenient.

****

Dear (possible) members of WLTP IWG,

On behalf of new WLTP leading team, I'm sending this mail to invite you

for your participation to upcoming WLTP phase2 works.

If you want to contribute any particular items listed in the attachment,

please fill out the column "Y" (your name, mail address and participate items)

If necessary, please forward this mail to your colleagues and ask them to reply to leading team

Here are reference documents…

Mandate of WLTP phase2 (subject to change according to last WLTP meeting)

http://www.unece.org/fileadmin/DAM/trans/doc/2015/wp29/WP29-167-29e.pdf

WLTP phase2 organization(slide6)

http://www.unece.org/fileadmin/DAM/trans/doc/2015/wp29grpe/GRPE-72-19.pdf

WLTP phase2 schedule

http://www.unece.org/fileadmin/DAM/trans/doc/2015/wp29grpe/GRPE-72-20.pdf

there is a fatal error, phase2b gtr should be finished by Jan 2019, not 2020.

Best regards,

Noriyuki (Nick) Ichikawa

Co-technical secretary of WLTP IWG

WLTP Phase2 Working Items and Schedule

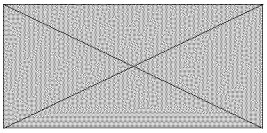
note) Completion timing of Phase2a may have a chance to be shifted based on each item progress

Working Items					Schedule		
Sub-Group / Task Force	secondary category	brief description	remark	collaboration with EVE	**2017 74th GRPE**		**2019 78th GRPE**
gtr amendment					Phase2a		Phase2b
gtr drafting					✔		✔
CYCLE TF							
Classification&Gear shift	Annex1&2	downscale/gear shift per system power of HEV		✔ Germany/ Korea			✔
Power to mass ratio n_min_drive	Annex1&2	Definition of mass VCC proposal for n_min_drive	carryover from Phase1b		(✔)		
Normalization	Annex7	mainly ICE (remaining item)	EU Electrified vehicle : JAPAN will				✔
Drive Index	Annex6	Collaborate with "Normalization"	re-visit necessity of trace index when apply normalization				✔
Supplemental Test TF							
Boundary Conditions	Annex6		Option				
Low & Realistic Winter Temp		correction of R/L and fuel specification			(✔)		
High Altitude					(✔)		
Auxiliary Devices	Annex6						
MAC		vehicle test ? Component evaluation ? Simplified test ?					✔
others		vehicle test ? Component evaluation ? Simplified test ?	Electrified vehicle : JAPAN will lead				✔
Eco-Innovation	new Annex		i.e. sailing …..				✔
Crankcase & Idle Emissions	new Annex				(✔)		

EVAP TF	new Annex		strong desire to develop gtr by 74th GRPE		✔		
Durability TF	new Annex						
ICE		pollutants only (rapid aging method)			(✔)		
HEV & PEV		pollutants and CO2/FC/Range (study on battery durability)		✔			✔
OBD TF	new Annex						✔
In Service TF	new Annex						
R/L		COP & ISC	bland new				✔
Pollutants			same requirement as current ?				✔
CO2/FC/Range			bland new				✔
E-Lab. SG							
Classification&Gear shift	Annex1&2	method of HEV system power		✔			✔
Normalization	Annex7	HEV study and methodology should be completed					✔
Supplemental Test (low temp./high altitude)	Annex8		apply to EVs ? or not ?		(✔)		
Supplemental Test (auxiliary device)	Annex8	vehicle test ? Component evaluation ? Simplified test ?	effect on EVs parameter	✔			✔
Post processing	Annex7&8		carryover from Phase1b		(✔)		
Durability	new Annex	pollutants and CO2/FC/Range (study on battery durability)		✔			✔
OBD	new Annex	EV Unique issues	take care of unique EVs items only				✔
FCV	Annex8	OVC-FCV Flow Method	ACEA needs		(✔)		
Carryover from Phase1b							
Defeat Device	Definition		handled by Leading Team				✔

	Annex4 items dual-axis roller usage	Annex4	refer to WLTP-13-04e			(✔)		
	Additional Pollutant	Annex5	refer to WLTP-13-04e					✔
	feedback from RRT	all						✔

To: Wehrly, Linc[wehrly.linc@epa.gov]
From: Transportation Law360
Sent: Fri 1/22/2016 9:15:31 AM
Subject: Air Traffic Reform To Dominate FAA Reauthorization Debate



TRANSPORTATION

Friday, January 22, 2016

TOP NEWS

DOT Urges Drivers To Check For Recalls After Record Year

U.S. vehicle recalls set a new record last year, the head of the National Highway Traffic Safety Administration said in unveiling a campaign Thursday that urges consumers to find out about recalls on their vehicles and get them fixed.

Judge Urges GM Driver To Consider Dropping Bellwether Trial

The New York federal judge in the first bellwether trial over General Motors' ignition switches on Thursday criticized the lead plaintiff's attorneys in the case for missing vital clues that their client may have lied that his Saturn Ion crash led to his eviction from a new house, and urged them to consider abandoning the trial.

Warren Targets Emissions Loophole In Auto Safety Proposal

Sen. Elizabeth Warren, D-Mass., grilled an automotive industry representative at a Thursday Senate hearing about a proposed vehicle safety bill that she said includes a loophole to let automakers avoid their fuel economy responsibilities.

Calif. Jury Hands Workers $12M Win Against Caltrans

A California state jury on Thursday awarded $11.9 million to five independent construction workers accusing the California Department of Transportation of causing them to contract a potentially deadly disease by concealing the presence of a harmful fungus, according to the workers' attorneys.

Tally No! MTA Loses Bid To Settle Insurance Tiff In London

The insurance arm of New York's Metropolitan Transportation Authority can't head to London to arbitrate a dispute with reinsurer Infrassure Ltd. over $20 million in coverage for damage to the city's public transit system caused by Hurricane Sandy, a New York federal judge ruled Thursday.

ANALYSIS

COMPANIES

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Air Traffic Reform To Dominate FAA Reauthorization Debate

A government watchdog's report that the Federal Aviation Administration is still operating inefficiently despite revamping many of its programs will intensify congressional debate over introducing a privatized or nonprofit-run air traffic control system as lawmakers tackle reauthorizing the agency, experts say.

AVIATION

Fee Notice Immaterial To Fare Deception, 11th Circ. Hears

A group of Spirit Airlines customers on Tuesday again asked the Eleventh Circuit to reinstate a $140 million RICO suit accusing the airline of hiding fees, saying showing the fees on its website did not preclude the obligation to include them in base fares.

United Hit With Class Action Over Lost Fare Discounts

A disgruntled member of a United Airlines discount program for senior citizens slapped the airline with a class action in Illinois federal court Tuesday alleging that it effectively canceled the program by eliminating special fares for its members.

AUTOMOTIVE

CFPB Can Better Identify Victims To Pay, Watchdog Says

The Consumer Financial Protection Bureau's Civil Penalty Fund victim identification process is generally effective but could be better, a watchdog said Thursday amid accusations over the bureau's shoddy identification of discriminated-against Ally car loan borrowers.

Rats Chewing Honda's Soy-Covered Wires, Suit Claims

The supposedly environmentally friendly soy casing Honda Motor Co. has begun installing in its newer vehicles is appealing to some consumers the automaker might not have expected, according to a proposed class action filed Thursday in California alleging rats and rabbits have been gnawing through the wires.

NLRB Says Veolia's Road Supervisors Aren't Real Supervisors

Road supervisors at Veolia Transportation Services Inc.'s facilities in Las Vegas are not actual supervisors under federal labor law, a split National Labor Relations Board said Wednesday, a ruling that paves the way for the workers to unionize.

Gilstrap Nixes Dashboard Phone System IP Suit Under Alice

U.S. District Judge Rodney Gilstrap on Wednesday dismissed a suit in Texas accusing Hyundai, Toyota, Subaru and others of infringing a patent for a dashboard telephone system that allows drivers to access calls through their infotainment system, finding the patent failed under Alice.

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Armstro

Kendall Law Says Bernstein May Have Conflict In VW MDL

Kendall Law Group on Wednesday told a California federal judge that Bernstein Litowitz Berger & Grossman LLP may need to be replaced in securities litigation against Volkswagen over its emissions scandal because a conflict of interest could arise if the firm is appointed in a similar consumer lawsuit.

Real Estate Rumors: Uber, University Of Texas, John Lennon

Uber has reportedly leased 12,000 square feet in Chicago, while the University of Texas system is said to be paying more than $200 million for 300 acres of land, and a Florida mansion formerly owned by John Lennon and Yoko Ono has reportedly traded hands for $23 million.

RAIL

Conrail Says Derailment Suit Needs Expert To Survive

Consolidated Rail Corp. told a federal judge that a New Jersey man claiming he suffered physical ailments following a 2012 train derailment and ensuing chemical spill can't prove that the railroad was negligent without expert testimony, and the court has excluded the plaintiff's medical causation expert.

LOGISTICS

FERC Launches Rate Probe Of Four Pipeline Cos.

The Federal Energy Regulatory Commission will dig into the rates charged by four gas pipeline companies, announcing Thursday that the agency will look into whether the companies are charging rates too high above their costs under federal law.

DC Circ. Urged To Review FERC Disapproval Of $786M Project

The owners of the Trans-Alaska Pipeline system have urged the D.C. Circuit to review the Federal Energy Regulatory Commission's refusal to allow them to recover $421 million in costs from a $786 million upgrade project the commission said the pipeline companies never should have approved.

$5B Gas Pipeline Must Be Rerouted, Forest Service Says

The developers of the $5 billion Atlantic Coast natural gas pipeline must further change the pipeline's route in order to avoid sensitive wildlife and forest areas within U.S. National Forest lands in Virginia and West Virginia, according to a U.S. Forest Service letter made public by the Federal Energy Regulatory Commission on Thursday.

MARITIME

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US Aims To Sink Shipper's Motion In Overbilling Case

The federal government asked a Washington, D.C., judge Wednesday to let stand her ruling that a government-contracted cargo shipper had overbilled for stevedore services by more than $500,000, violating the False Claims Act.

Netherlands, Belgium, France Must Start Taxing Seaports

The European Commission said Thursday it will require the Netherlands to apply corporate tax to its six publicly owned seaports to bring it in-line with the bloc's state aid rules, while proposing similar changes to port taxes for France and Belgium.

PEOPLE

Transportation Group Of The Year: Gibson Dunn

Gibson Dunn's recent efforts across a variety of transportation industry matters, including Matson's complex $610 million acquisition of Horizon Lines and successful challenges to federal railroad regulations, have earned it a spot on Law360's list of Transportation Groups of the Year.

EXPERT ANALYSIS

The Future Of Privatized Passenger Rail In The US

Since 1971, intercity passenger rail service in the United States has been limited to that provided by Amtrak, but the Passenger Rail Reform and Investment Act of 2015 could open the door to private operators and a future intercity passenger rail map that will be a mixture of Amtrak, public agencies and independent operators, says John Heffner at Strasburger & Price LLP.

Debating Old And New Trends In Auto Distribution

Discussions at the Federal Trade Commission's recent auto distribution workshop included the proper methods of regulating both old and new issues that affect not only the auto industry, but many others too. While the discussions are unlikely to result in any quick changes in policies, laws or enforcement, panelists did underscore several key debates, say attorneys at Schiff Hardin LLP.

LEGAL INDUSTRY

4 Things Firms Can Do To Win More Clients In 2016

Many attorneys spend a good chunk of their time building strong relationships with existing clients and that's not a bad thing, experts say. But it's also important to grow your practice by drawing in new clients and steering current ones in new directions. Here are four ways lawyers can bring in new business for the new year.

COMPANIES

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Managing Partners Anxious About Doing More With Less

Managing partners' confidence in the economy is the lowest it's been since 2012 and their outlook on the health of the legal industry isn't too rosy either, with many expressing anxiety about their ability to keep rates low as costs rise, the results of a survey released on Thursday said.

Manhattan M&A Tax Atty Charged In Wife's Fatal Stabbing

An attorney specializing in mergers and acquisitions with Manhattan accounting firm WeiserMazars LLP was charged on Wednesday in the stabbing death of his wife in the couple's Westchester County home.

Law360's Weekly Verdict: Legal Lions & Lambs

This week's pool of lions includes Greenberg Traurig LLP for snagging former New York Mayor Rudy Giuliani to head its cybersecurity and crisis management practice, as well as a handful of firms that notched wins before the U.S. Supreme Court. Leading the lambs, meanwhile, is a federal district judge that got his own benchslap from the Ninth Circuit.

NY Rule Change Lets Out-Of-Towners Practice Openly

Newly liberalized rules allowing out-of-state lawyers to work in New York should stop the longstanding practice of lawyers ignoring the prohibition while also pulling non-New York-admitted attorneys clearly under the state's disciplinary authority, experts say.

NY Gets New Top Judge With Confirmation Of Westchester DA

The New York Senate confirmed Westchester County District Attorney Janet DiFiore as chief judge of the state's highest court Thursday, with lawmakers from both sides of the aisle offering words of praise for Gov. Andrew Cuomo's nominee to replace retired Chief Judge Jonathan Lippman.

Breyer Says Foreign Law Can Help In Nat'l Security Cases

U.S. Supreme Court Justice Stephen Breyer on Thursday suggested the high court look to foreign legal decisions to strike a balance between civil liberties and national security, promoting his divisive theory that international precedents should step in where U.S. case law provides no clear answer.

India Moves Closer To Opening Up For Foreign Lawyers

India's finance minister on Tuesday put his support behind foreign lawyers being allowed to carry out a limited practice in the country, pushing India further along the path toward a more liberal and globalized legal environment.

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Co.

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FCA US
LLC

Florida East Coast Railway LLC

Ford Motor Compan

General Motors

Hearst Corp.

Honda Motor Co. Ltd.

Horizon Lines, Inc.

Hyundai Motor

Jaguar Land Rover Ltd.

Kirkland' Inc.

LinkedIn Corp.

Long Island Rail Road Co.

Matson Inc.

Metro-North Commut Railroad Co.

Montefic
Health
System
Inc.

NJ
Transit
Corp.

National
Fuel
Gas Co.

National
Railroad
Passenc
Corpora

Natural
Resourc
Defense
Council

New
York
Daily
News
Co.

Nissan
Motor
Compan

Norfolk
Southerr
Corpora

Piedmor
Natural
Gas Co
Inc.

Pricewat

Southea
Pennsyl
Transpo
Authority

Southwe
Airlines
Co.

Spirit Airlines Inc.

Subaru of America Inc.

The Pasha Group

Toyota Motor Corpora

TransCa Corpora

Trump Entertair Resorts Inc.

Twitter Inc.

Uber Technol Inc.

United Continer Holdings Inc.

Volkswa

WeiserM LLP

Wilmingt Trust Corp.

Zeughau Group LLC

LAW FIRMS

Arent Fox

Arnold & Porter

Bancroft PLLC

Berger Singerm

Bernstei Litowitz

Binder & Schwart

Browne George

Burns White

Caldwell Boudrea

Clark Hill

Cleary Josem

Covingtc & Burling

DLA Piper

Dickstei Shapiro

Dimond Kaplan

Directior IP Law

Frankfur Kurnit

Gibson & Sharps

Gibson Dunn

Girard Gibbs

Greenbe Traurig

Hagens Berman

Hartline Dacus

Heartfiel Law Firm

Hellmuth & Johnson

Heninge Garrison

Herzfeld & Rubin

Hilliard Munoz

Hogan Lovells

Hunton & Williams

Husch Blackwe

James & Hoffman

Jones Day

Kaufmar
&
Canoles

Kendall
Law
Group

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& Ellis

Latham
&
Watkins

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Loeb

McGuire

McMahc
Berger

Milbank
Tweed

Morgan
Lewis

Morris
Polich

Morrisor
&
Foerster

Munger
Tolles

Orrick
Herringt

Paul
Weiss

Pillsbury
Winthrop

Podhurs
Orseck

Quinn
Emanue

Robbins Russell

Schiff Hardin

Sidley Austin

Skadder

Steptoe & Johnson LLP

Stinson Leonard

Strasbur & Price

Stris & Maher

Stroock & Stroock

Troutma Sanders

Venable LLP

Weil Gotshal

Young Conawa

Zelle LLP

GOVER AGENC

Agency for Internati Develop

Californi
Departm
of
Transpo

Californi
High-
Speed
Rail
Authorit

Consum
Financia
Protectic
Bureau

Departm
of
Energy

Departm
of
Homelar
Security

Europea
Commis

Federal
Aviation
Administ

Federal
Energy
Regulat
Commis

Federal
Railroad
Administ

Federal
Reserve
System

Federal
Trade
Commis

Internati
Trade
Commis

National Highway Traffic Safety Administ

National Labor Relation Board

Office of Energy Efficienc and Renewa Energy

Securitie and Exchanc Commis

Surface Transpo Board

U.S. Departm of Justice

U.S. Departm of Transpo

U.S. Forest Service

U.S. Supreme Court

COMPANIES
General Motors

National Railroad Passenger Corporation

Volkswagen

AAR Corporation

AGL Resources Inc.

All Aboard Florida - Operations LLC

Alleghany Corporation

Alliance of Automobile Manufacturers

Ally Financial Inc.

Amalgamated Transit Union

America Fujikura Ltd.

American Bar Association

American Federation of Labor and Congress of Industrial Organizations

Anadarko Petroleum Corporation

Armstrong World Industries, Inc.

Association of American Railroads

Association of Corporate Counsel

BNSF Railway

BP p.l.c.

Bayer AG

Bayer CropScience Ltd.

Boston Consulting Group

CSX Corporation

Caesars Entertainment

Caesars Entertainment Operating Co. Inc.

ConocoPhillips

Dominion Resources, Inc.

Dow Chemical Co.

Duke Energy Corporation

FCA US LLC

Florida East Coast Railway LLC

Ford Motor Company

Hearst Corp.

Honda Motor Co. Ltd.

Horizon Lines, Inc.

Hyundai Motor

Jaguar Land Rover Ltd.

Kirkland's, Inc.

LinkedIn Corp.

Long Island Rail Road Co.

Matson Inc.

Metro-North Commuter Railroad Co.

Montefiore Health System Inc.

NJ Transit Corp.

National Fuel Gas Co.

Natural Resources Defense Council

New York Daily News Co.

Nissan Motor Company

Norfolk Southern Corporation

Piedmont Natural Gas Co Inc.

PricewaterhouseCoopers

Southeastern Pennsylvania Transportation Authority

Southwest Airlines Co.

Spirit Airlines Inc.

Subaru of America Inc.

The Pasha Group

Toyota Motor Corporation

TransCanada Corporation

Trump Entertainment Resorts Inc.

Twitter Inc.

Uber Technologies Inc.

United Continental Holdings Inc.

WeiserMazars LLP

Wilmington Trust Corp.

Zeughauser Group LLC

LAW FIRMS
Kirkland & Ellis

Covington & Burling

Greenberg Traurig

Hagens Berman

Hartline Dacus

Quinn Emanuel

Troutman Sanders

Venable LLP

Arent Fox

Arnold & Porter

Bancroft PLLC

Berger Singerman

Bernstein Litowitz

Binder & Schwartz

Browne George

Burns White

Caldwell Boudreaux

Clark Hill

Cleary Josem

DLA Piper

Dickstein Shapiro

Dimond Kaplan

Direction IP Law

Frankfurt Kurnit

Gibson & Sharps

Gibson Dunn

Girard Gibbs

Heartfield Law Firm

Hellmuth & Johnson

Heninger Garrison

Herzfeld & Rubin

Hilliard Munoz

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Hunton & Williams

Husch Blackwell

James & Hoffman

Jones Day

Kaufman & Canoles

Kendall Law Group

Latham & Watkins

Loeb & Loeb

McGuireWoods

McMahon Berger

Milbank Tweed

Morgan Lewis

Morris Polich

Morrison & Foerster

Munger Tolles

Orrick Herrington

Paul Weiss

Pillsbury Winthrop

Podhurst Orseck

Robbins Russell

Schiff Hardin

Sidley Austin

Skadden

Steptoe & Johnson LLP

Stinson Leonard

Strasburger & Price

Stris & Maher

Stroock & Stroock

Weil Gotshal

Young Conaway

Zelle LLP

GOVERNMENT AGENCIES
U.S. Supreme Court

Federal Energy Regulatory Commission

Federal Railroad Administration

U.S. Department of Justice

U.S. Department of Transportation

Agency for International Development

California Department of Transportation

California High-Speed Rail Authority

Consumer Financial Protection Bureau

Department of Energy

Department of Homeland Security

European Commission

Federal Aviation Administration

Federal Reserve System

Federal Trade Commission

International Trade Commission

National Highway Traffic Safety Administration

National Labor Relations Board

Office of Energy Efficiency and Renewable Energy

Securities and Exchange Commission

Surface Transportation Board

U.S. Forest Service

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InvestigationNum	MileageCat Code	Model Year	Mfr Name	Manufacturer Division	VIN	Verify Mfr Cd	Displacement	Test Group	Evap Family
-	L	2013	Audi	Audi	[redacted]		1.984	DADXJ02.0	DADXR014
-	L	2013	Audi	Audi	[redacted]		1.984	DADXJ02.0	DADXR014
-	L	2013	Audi	Audi	[redacted]		1.984	DADXJ02.0	DADXR014
-	L	2013	Audi	Audi	[redacted]		1.984	DADXJ02.0	DADXR014
-	L	2013	Audi	Audi	[redacted]		1.984	DADXJ02.0	DADXR014
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-	L	2013	VolkswageVW		2.48 DVWXV02.DVWXR01:
-	L	2013	VolkswageVW		2.48 DVWXV02.DVWXR01:
-	L	2013	VolkswageVW		2.48 DVWXV02.DVWXR01:
-	L	2013	VolkswageVW		2.48 DVWXV02.DVWXR01:
-	L	2013	VolkswageVW		2.48 DVWXV02.DVWXR01:
-	L	2013	VolkswageVW		2.48 DVWXV02.DVWXR01:
-	L	2013	VolkswageVW		2.48 DVWXV02.DVWXR01:
-	L	2013	VolkswageVW		2.48 DVWXV02.DVWXR01:
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-	L	2013	VolkswageVW		2.48 DVWXV02.DVWXR01:
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-	L	2013	VolkswageVW		2.48 DVWXV02.DVWXR01:
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-	L	2013	VolkswageVW		2.48 DVWXV02.DVWXR01:
-	L	2013	VolkswageVW		2.48 DVWXV02.DVWXR01:
-	L	2013	VolkswageVW		3.596 DVWXV03.DVWXR01:
-	L	2013	VolkswageVW		3.596 DVWXV03.DVWXR01:

-	L	2013 VolkswageVW	[redacted]	3.596 DVWXV03.DVWXR01:
-	L	2013 VolkswageVW		3.596 DVWXV03.DVWXR01:
-	L	2013 VolkswageVW		3.596 DVWXV03.DVWXR01:
-	L	2013 VolkswageVW		3.596 DVWXV03.DVWXR01:
-	L	2013 VolkswageVW		3.596 DVWXV03.DVWXR01:
-	L	2013 VolkswageVW		3.596 DVWXV03.DVWXR01:
-	L	2013 VolkswageVW		3.596 DVWXV03.DVWXR01:
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-	L	2013 VolkswageVW		3.596 DVWXV03.DVWXR01:
-	L	2013 VolkswageVW		3.596 DVWXV03.DVWXR01:
-	L	2013 VolkswageVW		3.596 DVWXV03.DVWXR01:
-	L	2013 VolkswageVW		3.596 DVWXV03.DVWXR01:
-	L	2013 VolkswageVW		3.596 DVWXV03.DVWXR01:
-	L	2013 VolkswageVW		3.596 DVWXV03.DVWXR01:
-	L	2013 VolkswageVW		3.596 DVWXV03.DVWXR01:
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-	L	2013 VolkswageVW		3.596 DVWXV03.DVWXR01:
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-	L	2013 VolkswageVW		3.596 DVWXV03.DVWXR01:
-	L	2013 VolkswageVW		3.596 DVWXV03.DVWXR01:

CarlineCode	CarlineName	MFR VehicleModel	Trim Level	Veh ProcSale Area	State	Veh ProcAltitude	Veh ProcClimate	Useful Life 75 PCT Requirem	Odometer At Proc
26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
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26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
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26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	28895
20	A4	A4	A4	CA	MI	L	C	Vehicle no	14812
20	A4	A4	A4	CA	MI	L	C	Vehicle no	14812
20	A4	A4	A4	CA	MI	L	C	Vehicle no	14812
20	A4	A4	A4	CA	MI	L	C	Vehicle no	14812
20	A4	A4	A4	CA	MI	L	C	Vehicle no	14812
20	A4	A4	A4	CA	MI	L	C	Vehicle no	14812
20	A4	A4	A4	CA	MI	L	C	Vehicle no	14812
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20	A4	A4	A4	CA	MI	L	C	Vehicle no	14812
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20	A4	A4	A4	CA	MI	L	C	Vehicle no	14812
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20	A4	A4	A4	CA	MI	L	C	Vehicle no	14812
20	A4	A4	A4	CA	MI	L	C	Vehicle no	14812
20	A4	A4	A4	CA	MI	L	C	Vehicle no	14812

20	A4	A4	A4	CA	MI	L	C	Vehicle no	14812
330	Q5	Q5	Q5	CA	MI	L	C	Vehicle no	32084
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75	A6	A6	A6	CA	CA	L	W	Vehicle no	24758
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75	A6	A6	A6	CA	CA	L	W	Vehicle no	24758
75	A6	A6	A6	CA	CA	L	W	Vehicle no	24758
96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
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96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
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96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
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96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
96	A8L	A8L	-	CA	CA	L	W	Vehicle no	16909
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	13174
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	13174
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	13174
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	13174
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	13174

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140Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	13174
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140Touareg	Touareg	Touareg	CA	MI	L	C	Vehicle no	44383
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320Q7	Q7	Q7	CA	MI	L	C	Vehicle no	46396
320Q7	Q7	Q7	CA	MI	L	C	Vehicle no	46396
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320Q7	Q7	Q7	CA	MI	L	C	Vehicle no	46396
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320Q7	Q7	Q7	CA	MI	L	C	Vehicle no	46396

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320Q7	Q7	Q7	CA	CA	L	W	Vehicle no	22344
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320Q7	Q7	Q7	CA	MI	L	C	Vehicle no	41935
320Q7	Q7	Q7	CA	MI	L	C	Vehicle no	41935
320Q7	Q7	Q7	CA	MI	L	C	Vehicle no	41935

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320Q7	Q7	Q7	CA	MI	L	C	Vehicle no	41935
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320Q7	Q7	Q7	CA	MI	L	C	Vehicle no	41935
320Q7	Q7	Q7	CA	CA	L	W	Vehicle no	16618
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320Q7	Q7	Q7	CA	CA	L	W	Vehicle no	16618
320Q7	Q7	Q7	CA	CA	L	W	Vehicle no	16618
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320Q7	Q7	Q7	CA	CA	L	W	Vehicle no	16618
65A3	A3	A3	CA	CA	L	W	Vehicle no	21723
65A3	A3	A3	CA	CA	L	W	Vehicle no	21723
65A3	A3	A3	CA	CA	L	W	Vehicle no	21723
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65A3	A3	A3	CA	CA	L	W	Vehicle no	21723

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65	A3	A3	A3	CA	CA	L	W	Vehicle no	21723
65	A3	A3	A3	CA	CA	L	W	Vehicle no	21723
65	A3	A3	A3	CA	CA	L	W	Vehicle no	21723
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	15983
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	15983
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	15983
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	15983
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	15983
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	15983
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	15983
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	15983
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	15983
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211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	15983
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211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	15983
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	15983
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	15983
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	15983
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	15983
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66	A3	A3	A3	CA	CA	L	W	Vehicle no	42285
66	A3	A3	A3	CA	CA	L	W	Vehicle no	42285
66	A3	A3	A3	CA	CA	L	W	Vehicle no	42285
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66	A3	A3	A3	CA	CA	L	W	Vehicle no	42285
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66	A3	A3	A3	CA	CA	L	W	Vehicle no	42285
66	A3	A3	A3	CA	CA	L	W	Vehicle no	42285
66	A3	A3	A3	CA	CA	L	W	Vehicle no	42285

66	A3	A3	A3	CA	CA	L	W	Vehicle no	42285
66	A3	A3	A3	CA	CA	L	W	Vehicle no	42285
66	A3	A3	A3	CA	CA	L	W	Vehicle no	42285
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	21644
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	21644
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	21644
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	21644
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	21644
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211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	21644
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	21644
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	21644
211	GTI	GTI	GTI	CA	MI	L	C	Vehicle no	21644
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26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	40624
26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	40624
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26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	40624
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26	Allroad	Allroad	Allroad	CA	CA	L	W	Vehicle no	40624

75	A6	A6	A6	CA	MI	L	C	Vehicle no	36127
75	A6	A6	A6	CA	MI	L	C	Vehicle no	36127
75	A6	A6	A6	CA	MI	L	C	Vehicle no	36127
75	A6	A6	A6	CA	MI	L	C	Vehicle no	36127
75	A6	A6	A6	CA	MI	L	C	Vehicle no	36127
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75	A6	A6	A6	CA	MI	L	C	Vehicle no	36127
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35	Continenta	Continenta	Continenta	CA	CA	L	W	Vehicle no	11772
35	Continenta	Continenta	Continenta	CA	CA	L	W	Vehicle no	11772
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35	Continenta	Continenta	Continenta	CA	CA	L	W	Vehicle no	11772
35	Continenta	Continenta	Continenta	CA	CA	L	W	Vehicle no	11772
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35	Continenta	Continenta	Continenta	CA	CA	L	W	Vehicle no	11772
35	Continenta	Continenta	Continenta	CA	CA	L	W	Vehicle no	11772
35	Continenta	Continenta	Continenta	CA	CA	L	W	Vehicle no	11772
97	S8	S8	S8	CA	CA	L	W	Vehicle no	11467

97S8	S8	S8	CA	CA	L	W	Vehicle no	11467
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97S8	S8	S8	CA	CA	L	W	Vehicle no	11467
97S8	S8	S8	CA	CA	L	W	Vehicle no	11467
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97S8	S8	S8	CA	CA	L	W	Vehicle no	11467
97S8	S8	S8	CA	CA	L	W	Vehicle no	11467
221Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	44047
221Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	44047
221Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	44047
221Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	44047
221Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	44047
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221Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	44047
221Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	44047
221Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	44047
221Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	44047
160Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	37291
160Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	37291
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160Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	37291
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160Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	37291
160Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	37291
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160Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	37291
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160Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	37291
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
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293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
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293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
293CC	CC	CC	CA	CA	L	W	Vehicle no	19001
140Touareg	Touareg	Touareg	CA	MI	L	C	Vehicle no	18519
140Touareg	Touareg	Touareg	CA	MI	L	C	Vehicle no	18519
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140Touareg	Touareg	Touareg	CA	MI	L	C	Vehicle no	18519
140Touareg	Touareg	Touareg	CA	MI	L	C	Vehicle no	18519

140Touareg	Touareg	Touareg	CA	MI	L	C	Vehicle no	18519
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140Touareg	Touareg	Touareg	CA	MI	L	C	Vehicle no	18519
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140Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	17182
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222Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	MI	L	C	Vehicle no	36042
222Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	MI	L	C	Vehicle no	36042
222Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	MI	L	C	Vehicle no	36042
222Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	MI	L	C	Vehicle no	36042
222Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	MI	L	C	Vehicle no	36042
222Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	MI	L	C	Vehicle no	36042
222Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	MI	L	C	Vehicle no	36042
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222	Jetta HybriJetta HybriJetta HybriCA	CA	L	W	Vehicle no	19005
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222	Jetta HybriJetta HybriJetta HybriCA	CA	L	W	Vehicle no	19005
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235	Beetle Con	Beetle Con	Beetle Con	CA	MI	L	C	Vehicle no	31826
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280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	30949
221	JETTA TDI	-	-	FA	MI	L	C	Vehicle no	46767
221	JETTA TDI	-	-	FA	MI	L	C	Vehicle no	46767
221	JETTA TDI	-	-	FA	MI	L	C	Vehicle no	46767
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221	JETTA TDI	-	-	FA	MI	L	C	Vehicle no	46767
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221JETTA TDI	-	-	FA	MI	L	C	Vehicle no	46767
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221	JETTA TDI -	-	FA	MI	L	C	Vehicle use	59737
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225	Jetta Sport-	-	FA	MI	L	C	Vehicle no	44811
225	Jetta Sport-	-	FA	MI	L	C	Vehicle no	44811
225	Jetta Sport-	-	FA	MI	L	C	Vehicle no	44811
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206	Golf	Golf	Golf	CA	CA	L	W	Vehicle no	13842
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206	Golf	Golf	Golf	CA	CA	L	W	Vehicle no	13842
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206	Golf TDI	-	-	FA	MI	L	C	Vehicle use	65742
206	Golf TDI	-	-	FA	MI	L	C	Vehicle use	65742
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206	Golf TDI	-	-	FA	MI	L	C	Vehicle use	65742
206	Golf TDI	-	-	FA	MI	L	C	Vehicle use	65742
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225	Passat	-		6 FA	MI	L	C	Vehicle no	28206
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225	Passat	-		6 FA	MI	L	C	Vehicle no	28206
225	Passat	-		6 FA	MI	L	C	Vehicle no	28206
225	Passat	-		6 FA	MI	L	C	Vehicle no	28206
225	Passat	-		6 FA	MI	L	C	Vehicle no	28206
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225	Passat	-		6 FA	MI	L	C	Vehicle no	28206
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225	Passat	-		6 FA	MI	L	C	Vehicle no	28206
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225	Passat	-		6 FA	MI	L	C	Vehicle no	28206
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225	Passat	-		6 FA	MI	L	C	Vehicle no	28206
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225	Passat	-		6 FA	MI	L	C	Vehicle no	28206
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225	Passat	-	-	FA	MI	L	C	Vehicle no	37563
225	Passat	-	-	FA	MI	L	C	Vehicle no	37563
225	Passat	-	-	FA	MI	L	C	Vehicle no	37563
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225	Passat	-	-	FA	MI	L	C	Vehicle no	37563
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225	Passat	-	-	FA	MI	L	C	Vehicle no	37563
225	Passat	-	-	FA	MI	L	C	Vehicle no	37563
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280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17882
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17882
230	Beetle	-	-	FA	MI	L	C	Vehicle no	11660
230	Beetle	-	-	FA	MI	L	C	Vehicle no	11660
230	Beetle	-	-	FA	MI	L	C	Vehicle no	11660
230	Beetle	-	-	FA	MI	L	C	Vehicle no	11660
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230	Beetle	-	-	FA	MI	L	C	Vehicle no	11660
230	Beetle	-	-	FA	MI	L	C	Vehicle no	11660
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221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	13226

221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	13226
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221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	13226
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	13226
206	Golf	Golf	Golf	CA	MI	L	W	Vehicle no	11874
206	Golf	Golf	Golf	CA	MI	L	W	Vehicle no	11874
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206	Golf	Golf	Golf	CA	MI	L	W	Vehicle no	11874
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206	Golf	Golf	Golf	CA	MI	L	W	Vehicle no	11874
206	Golf	Golf	Golf	CA	MI	L	W	Vehicle no	11874
206	Golf	Golf	Golf	CA	MI	L	W	Vehicle no	11874
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206	Golf	Golf	Golf	CA	MI	L	W	Vehicle no	11874
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280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	29113
206	Golf 2dr	Golf 2dr	Golf 2dr	CA	CA	L	W	Vehicle no	16375
206	Golf 2dr	Golf 2dr	Golf 2dr	CA	CA	L	W	Vehicle no	16375
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206	Golf 2dr	Golf 2dr	Golf 2dr	CA	CA	L	W	Vehicle no	16375
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206	Golf 2dr	Golf 2dr	Golf 2dr	CA	CA	L	W	Vehicle no	16375
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206	Golf 2dr	Golf 2dr	Golf 2dr	CA	CA	L	W	Vehicle no	16375
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206	Golf 2dr	Golf 2dr	Golf 2dr	CA	CA	L	W	Vehicle no	16375
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206	Golf 2dr	Golf 2dr	Golf 2dr	CA	CA	L	W	Vehicle no	16375
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206	Golf 2dr	Golf 2dr	Golf 2dr	CA	CA	L	W	Vehicle no	16375
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206	Golf 2dr	Golf 2dr	Golf 2dr	CA	CA	L	W	Vehicle no	16375
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235	Beetle Con	Beetle Con	Beetle Con	FA	MI	L	C	Vehicle no	23073
235	Beetle Con	Beetle Con	Beetle Con	FA	MI	L	C	Vehicle no	23073
235	Beetle Con	Beetle Con	Beetle Con	FA	MI	L	C	Vehicle no	23073
235	Beetle Con	Beetle Con	Beetle Con	FA	MI	L	C	Vehicle no	23073
235	Beetle Con	Beetle Con	Beetle Con	FA	MI	L	C	Vehicle no	23073
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235	Beetle Con	Beetle Con	Beetle Con	FA	MI	L	C	Vehicle no	23073
235	Beetle Con	Beetle Con	Beetle Con	FA	MI	L	C	Vehicle no	23073
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235	Beetle Con	Beetle Con	Beetle Con	FA	MI	L	C	Vehicle no	23073
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221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	45218
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221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	45218
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280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	19905
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280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	19905
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	19905
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	27928
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911

280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	24911
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635
280	Passat	Passat	-	CA	CA	L	W	Vehicle no	27635

Trans Type	Trans Other	TransLock up	CreeperGear	TransGear Num	Tire Size	AxleRatio	EngineCode	EquivTest Weight	InspectionDate
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	235/50 R1	3.08	CPMA	4250	14-Oct-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMA	4000	16-May-14

Automatic	% of useful life requirement	N	8	245/40 R1	2.85	CPMA	400016-May-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	255/45 R2	3.2	CTUC	4750 20-Aug-14
Automatic	% of useful life requirement	N	8	225/50 R1	2.85	CTUA	4250 31-Jul-14
Automatic	% of useful life requirement	N	8	225/50 R1	2.85	CTUA	4250 31-Jul-14
Automatic	% of useful life requirement	N	8	225/50 R1	2.85	CTUA	4250 31-Jul-14
Automatic	% of useful life requirement	N	8	225/50 R1	2.85	CTUA	4250 31-Jul-14
Automatic	% of useful life requirement	N	8	225/50 R1	2.85	CTUA	4250 31-Jul-14
Automatic	% of useful life requirement	N	8	225/50 R1	2.85	CTUA	4250 31-Jul-14
Automatic	% of useful life requirement	N	8	225/50 R1	2.85	CTUA	4250 31-Jul-14
Automatic	% of useful life requirement	N	8	225/50 R1	2.85	CTUA	4250 31-Jul-14
Automatic	% of useful life requirement	N	8	225/50 R1	2.85	CTUA	4250 31-Jul-14
Automatic	% of useful life requirement	N	8	225/50 R1	2.85	CTUA	4250 31-Jul-14
Automatic	% of useful life requirement	N	8	225/50 R1	2.85	CTUA	4250 31-Jul-14
Automatic	% of useful life requirement	N	8	225/50 R1	2.85	CTUA	4250 31-Jul-14
Automatic	% of useful life requirement	N	8	225/50 R1	2.85	CTUA	4250 31-Jul-14

Automatic	% of useful life requirement	N	8225/50 R1(	2.85	CTUA	4250	31-Jul-14
Automatic	% of useful life requirement	N	8225/50 R1(	2.85	CTUA	4250	31-Jul-14
Automatic	% of useful life requirement	N	8225/50 R1(	2.85	CTUA	4250	31-Jul-14
Automatic	% of useful life requirement	N	8225/50 R1(	2.85	CTUA	4250	31-Jul-14
Automatic	% of useful life requirement	N	8225/50 R1(	2.85	CTUA	4250	31-Jul-14
Automatic	% of useful life requirement	N	8225/50 R1(	2.85	CTUA	4250	31-Jul-14
Automatic	% of useful life requirement	N	8225/50 R1(	2.85	CTUA	4250	31-Jul-14
Automatic	% of useful life requirement	N	8225/50 R1(	2.85	CTUA	4250	31-Jul-14
Automatic	% of useful life requirement	N	8225/50 R1(	2.85	CTUA	4250	31-Jul-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/40 R2(	3.2	CTUB	4750	24-Jun-14
Automatic	% of useful life requirement	N	8265/50 R1(	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R1(	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R1(	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R1(	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R1(	3.27	CNRB	5250	28-May-14

Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8265/50 R19	3.27	CNRB	5250	28-May-14
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8255/55 R18	3.27	CNRB	5250	4-Feb-15
Automatic	% of useful life requirement	N	8275/45 R20	3.27	CNRB	6000	9-Dec-14
Automatic	% of useful life requirement	N	8275/45 R20	3.27	CNRB	6000	9-Dec-14
Automatic	% of useful life requirement	N	8275/45 R20	3.27	CNRB	6000	9-Dec-14
Automatic	% of useful life requirement	N	8275/45 R20	3.27	CNRB	6000	9-Dec-14
Automatic	% of useful life requirement	N	8275/45 R20	3.27	CNRB	6000	9-Dec-14
Automatic	% of useful life requirement	N	8275/45 R20	3.27	CNRB	6000	9-Dec-14
Automatic	% of useful life requirement	N	8275/45 R20	3.27	CNRB	6000	9-Dec-14
Automatic	% of useful life requirement	N	8275/45 R20	3.27	CNRB	6000	9-Dec-14

% of useful life requirement	N	8275/45 R2(	3.27	CNRB	6000	9-Dec-14
% of useful life requirement	N	8275/45 R2(	3.27	CNRB	6000	9-Dec-14
% of useful life requirement	N	8275/45 R2(	3.27	CNRB	6000	9-Dec-14
% of useful life requirement	N	8275/45 R2(	3.27	CNRB	6000	9-Dec-14
% of useful life requirement	N	8275/45 R2(	3.27	CNRB	6000	9-Dec-14
% of useful life requirement	N	8275/45 R2(	3.27	CNRB	6000	9-Dec-14
% of useful life requirement	N	8275/45 R2(	3.27	CNRB	6000	9-Dec-14
% of useful life requirement	N	8275/45 R2(	3.27	CNRB	6000	9-Dec-14
% of useful life requirement	N	8275/45 R2(	3.27	CNRB	6000	9-Dec-14
% of useful life requirement	N	8275/45 R2(	3.27	CNRB	6000	9-Dec-14
% of useful life requirement	N	8275/45 R2(	3.27	CNRB	6000	9-Dec-14
% of useful life requirement	N	8275/45 R2(	3.27	CNRB	6000	9-Dec-14
% of useful life requirement	N	8275/45 R2(	3.27	CNRB	6000	9-Dec-14
% of useful life requirement	N	8275/45 R2(	3.27	CNRB	6000	9-Dec-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8295/35 R2:	3.27	CNRB	6000	11-Nov-14
% of useful life requirement	N	8265/50 R1!	3.7	CTWB	5500	4-Feb-15
% of useful life requirement	N	8265/50 R1!	3.7	CTWB	5500	4-Feb-15
% of useful life requirement	N	8265/50 R1!	3.7	CTWB	5500	4-Feb-15
% of useful life requirement	N	8265/50 R1!	3.7	CTWB	5500	4-Feb-15
% of useful life requirement	N	8265/50 R1!	3.7	CTWB	5500	4-Feb-15
% of useful life requirement	N	8265/50 R1!	3.7	CTWB	5500	4-Feb-15
% of useful life requirement	N	8265/50 R1!	3.7	CTWB	5500	4-Feb-15
% of useful life requirement	N	8265/50 R1!	3.7	CTWB	5500	4-Feb-15
% of useful life requirement	N	8265/50 R1!	3.7	CTWB	5500	4-Feb-15
% of useful life requirement	N	8265/50 R1!	3.7	CTWB	5500	4-Feb-15

Automatic	% of useful life requirement	N	8265/50 R1	3.7	CTWB	5500	4-Feb-15
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CTWB	5500	4-Feb-15
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CTWB	5500	4-Feb-15
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CTWB	5500	4-Feb-15
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CTWB	5500	4-Feb-15
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CTWB	5500	4-Feb-15
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CTWB	5500	4-Feb-15
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CTWB	5500	4-Feb-15
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CTWB	5500	4-Feb-15
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	13-Oct-14
Automatic	% of useful life requirement	N	6225/45 R1	3.14	CBFA	3750	23-Sep-14
Automatic	% of useful life requirement	N	6225/45 R1	3.14	CBFA	3750	23-Sep-14
Automatic	% of useful life requirement	N	6225/45 R1	3.14	CBFA	3750	23-Sep-14
Automatic	% of useful life requirement	N	6225/45 R1	3.14	CBFA	3750	23-Sep-14
Automatic	% of useful life requirement	N	6225/45 R1	3.14	CBFA	3750	23-Sep-14
Automatic	% of useful life requirement	N	6225/45 R1	3.14	CBFA	3750	23-Sep-14
Automatic	% of useful life requirement	N	6225/45 R1	3.14	CBFA	3750	23-Sep-14
Automatic	% of useful life requirement	N	6225/45 R1	3.14	CBFA	3750	23-Sep-14
Automatic	% of useful life requirement	N	6225/45 R1	3.14	CBFA	3750	23-Sep-14
Automatic	% of useful life requirement	N	6225/45 R1	3.14	CBFA	3750	23-Sep-14
Automatic	% of useful life requirement	N	6225/45 R1	3.14	CBFA	3750	23-Sep-14
Automatic	% of useful life requirement	N	6225/45 R1	3.14	CBFA	3750	23-Sep-14
Automatic	% of useful life requirement	N	6225/45 R1	3.14	CBFA	3750	23-Sep-14
Automatic	% of useful life requirement	N	6225/45 R1	3.14	CBFA	3750	23-Sep-14

% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CBFA 3750 23-Sep-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CBFA 3750 23-Sep-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CBFA 3750 23-Sep-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CBFA 3750 23-Sep-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CBFA 3750 23-Sep-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CBFA 3750 23-Sep-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CBFA 3750 23-Sep-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CBFA 3750 23-Sep-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/40 R1	3.14	CBFA 3375 22-Aug-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14
% of useful life requirement	Automatic	N	N	6225/45 R1	3.14	CCTA 3875 11-Dec-14

% of useful life requirement / Automatic	N	N	6225/45 R1	3.14	CCTA	3875	11-Dec-14
% of useful life requirement / Automatic	N	N	6225/45 R1	3.14	CCTA	3875	11-Dec-14
% of useful life requirement / Automatic	N	N	6225/45 R1	3.14	CCTA	3875	11-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	6225/40 R1	3.14	CCTA	3375	9-Dec-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14
% of useful life requirement / Automatic	N	N	8235/50 R1	3.08	CPMA	4250	9-Sep-14

% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8245/45 R18	3.08 CAEB	4250 30-Jun-14
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8275/35 R21	2.85 CMMA	5500 6-Jan-15
% of useful life requirement	Automatic	N	N	8215/70 R15	3.2 CGTA	5000 24-Nov-14

Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Automatic	% of useful life requirement	N	N	8215/70 R1	3.2	CGTA	5000 24-Nov-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Manual	% of useful life requirement	N	N	6225/40 R1	3.68	CCTA	3500 20-Aug-14
Automatic	% of useful life requirement	N	N	6225/40 R1	3.54	CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6225/40 R1	3.54	CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6225/40 R1	3.54	CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6225/40 R1	3.54	CCTA	3875 27-Aug-14

Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	225/40 R18	3.54 CCTA	3875 27-Aug-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R17	3.14 CCTA	3750 19-Nov-14
Automatic	% of useful life requirement	N	N	8	255/55 R18	3.7 CGRA	5250 23-Oct-14
Automatic	% of useful life requirement	N	N	8	255/55 R18	3.7 CGRA	5250 23-Oct-14
Automatic	% of useful life requirement	N	N	8	255/55 R18	3.7 CGRA	5250 23-Oct-14
Automatic	% of useful life requirement	N	N	8	255/55 R18	3.7 CGRA	5250 23-Oct-14
Automatic	% of useful life requirement	N	N	8	255/55 R18	3.7 CGRA	5250 23-Oct-14

Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	23-Oct-14
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	23-Oct-14
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	23-Oct-14
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	23-Oct-14
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	23-Oct-14
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	23-Oct-14
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	23-Oct-14
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	23-Oct-14
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	23-Oct-14
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	23-Oct-14
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	23-Oct-14
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	23-Oct-14
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	23-Oct-14
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	23-Oct-14
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	23-Oct-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	8265/50 R1	3.7	CGRA	5250	3-Sep-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14

Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7255/60 R1	3.23	CNLA	3625	1-Jul-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	7205/55 R1	4.44	CNLA	3625	22-Sep-14
Automatic	% of useful life requirement	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic	% of useful life requirement	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic	% of useful life requirement	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic	% of useful life requirement	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic	% of useful life requirement	N	6235/45 R1	4.06	2537	3625	24-Oct-14

Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	4.06	2537	3625	24-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3750	15-Oct-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic % of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14

Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	4-Dec-14
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CBFA	3875	9-Dec-14
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CBFA	3875	9-Dec-14
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CBFA	3875	9-Dec-14
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CBFA	3875	9-Dec-14
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CBFA	3875	9-Dec-14
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CBFA	3875	9-Dec-14
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CBFA	3875	9-Dec-14
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CBFA	3875	9-Dec-14
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CBFA	3875	9-Dec-14
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CBFA	3875	9-Dec-14
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CBFA	3875	9-Dec-14
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CBFA	3875	9-Dec-14
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CBFA	3875	9-Dec-14
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CBFA	3875	9-Dec-14
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CBFA	3875	9-Dec-14
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CBFA	3875	9-Dec-14
Automatic	% of useful life requirement	N	6205/55 R1	3.69	CBPA	3250	15-Apr-14
Automatic	% of useful life requirement	N	6205/55 R1	3.69	CBPA	3250	15-Apr-14
Automatic	% of useful life requirement	N	6205/55 R1	3.69	CBPA	3250	15-Apr-14
Automatic	% of useful life requirement	N	6205/55 R1	3.69	CBPA	3250	15-Apr-14
Automatic	% of useful life requirement	N	6205/55 R1	3.69	CBPA	3250	15-Apr-14
Automatic	% of useful life requirement	N	6205/55 R1	3.69	CBPA	3250	15-Apr-14
Automatic	% of useful life requirement	N	6205/55 R1	3.69	CBPA	3250	15-Apr-14
Automatic	% of useful life requirement	N	6205/55 R1	3.69	CBPA	3250	15-Apr-14

% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	15-Apr-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	15-Apr-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	15-Apr-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	15-Apr-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	15-Apr-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	15-Apr-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	15-Apr-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	15-Apr-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	15-Apr-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	15-Apr-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	15-Apr-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.69	CBPA	3250	1-Jul-14
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	18-Nov-14
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	18-Nov-14
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	18-Nov-14
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	18-Nov-14
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	18-Nov-14
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	18-Nov-14
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	18-Nov-14
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	18-Nov-14
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	18-Nov-14
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	18-Nov-14
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	18-Nov-14
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	18-Nov-14
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	18-Nov-14
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	18-Nov-14
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	18-Nov-14

Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	18-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	18-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	18-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	18-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	18-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	18-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	18-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	18-Nov-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	9-Dec-14
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	20-Jul-15

Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	% of useful life requirement	N	6-	-	-	-	20-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15
Automatic	Useful life requirement but odometer < 75% (Requires EPA/CARB approval)	N	6-	-	-	-	23-Jul-15

Automatic - useful life requirement but odometer < 75% (Requires EPA/CARB approval)	Y	N	6	-	-	-	-	23-Jul-15
Automatic - useful life requirement but odometer < 75% (Requires EPA/CARB approval)	Y	N	6	-	-	-	-	23-Jul-15
Automatic - useful life requirement but odometer < 75% (Requires EPA/CARB approval)	Y	N	6	-	-	-	-	23-Jul-15
Automatic - useful life requirement but odometer < 75% (Requires EPA/CARB approval)	Y	N	6	-	-	-	-	23-Jul-15
Automatic - useful life requirement but odometer < 75% (Requires EPA/CARB approval)	Y	N	6	-	-	-	-	23-Jul-15
Automatic - useful life requirement but odometer < 75% (Requires EPA/CARB approval)	Y	N	6	-	-	-	-	23-Jul-15
Automatic - useful life requirement but odometer < 75% (Requires EPA/CARB approval)	Y	N	6	-	-	-	-	23-Jul-15
Automatic - useful life requirement but odometer < 75% (Requires EPA/CARB approval)	Y	N	6	-	-	-	-	23-Jul-15
Automatic - useful life requirement but odometer < 75% (Requires EPA/CARB approval)	Y	N	6	-	-	-	-	23-Jul-15
Automatic - useful life requirement but odometer < 75% (Requires EPA/CARB approval)	Y	N	6	-	-	-	-	23-Jul-15
Automatic - useful life requirement but odometer < 75% (Requires EPA/CARB approval)	Y	N	6	-	-	-	-	23-Jul-15
Automatic - useful life requirement but odometer < 75% (Requires EPA/CARB approval)	Y	N	6	-	-	-	-	23-Jul-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual % of useful life requirement	N	N	6	-	-	-	-	27-May-15

Manual	% of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual	% of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual	% of useful life requirement	N	N	6	-	-	-	-	27-May-15
Manual	% of useful life requirement	N	N	6	-	-	-	-	27-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-	1-Jun-15
Automatic	% of useful life requirement	N	N	6	225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6	225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6	225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6	225/45 R1	3.04	CJAA	3500	26-Aug-14

Automatic	% of useful life requirement	N	N	6225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6225/45 R1	3.04	CJAA	3500	26-Aug-14
Automatic	% of useful life requirement	N	N	6225/45 R1	3.04	CJAA	3500	26-Aug-14
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15
Selectable	useful life requirement and odometer > 75% of useful life	Y	N	6	-	-	-	15-Jul-15

Selectable	Y	N	6	-	-	-	15-Jul-15
Selectable	Y	N	6	-	-	-	15-Jul-15
Selectable	Y	N	6	-	-	-	15-Jul-15
Selectable	Y	N	6	-	-	-	15-Jul-15
Selectable	Y	N	6	-	-	-	15-Jul-15
Selectable	Y	N	6	-	-	-	15-Jul-15
Selectable	Y	N	6	-	-	-	15-Jul-15
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Automatic	N	N	6	225/45 R17	3.04	CJAA	35001 6-May-14
Manual	N	N	6	225/45 R17	2.76	CJAA	3375 20-Aug-14
Manual	N	N	6	225/45 R17	2.76	CJAA	3375 20-Aug-14
Manual	N	N	6	225/45 R17	2.76	CJAA	3375 20-Aug-14
Manual	N	N	6	225/45 R17	2.76	CJAA	3375 20-Aug-14
Manual	N	N	6	225/45 R17	2.76	CJAA	3375 20-Aug-14
Manual	N	N	6	225/45 R17	2.76	CJAA	3375 20-Aug-14
Manual	N	N	6	225/45 R17	2.76	CJAA	3375 20-Aug-14
Manual	N	N	6	225/45 R17	2.76	CJAA	3375 20-Aug-14
Manual	N	N	6	225/45 R17	2.76	CJAA	3375 20-Aug-14
Manual	N	N	6	225/45 R17	2.76	CJAA	3375 20-Aug-14
Manual	N	N	6	225/45 R17	2.76	CJAA	3375 20-Aug-14
Manual	N	N	6	225/45 R17	2.76	CJAA	3375 20-Aug-14
Manual	N	N	6	225/45 R17	2.76	CJAA	3375 20-Aug-14
Manual	N	N	6	225/45 R17	2.76	CJAA	3375 20-Aug-14
Manual	N	N	6	225/45 R17	2.76	CJAA	3375 20-Aug-14

% of useful life requirement	Manual	N	N	6	225/45 R1	2.76	CJAA	3375	20-Aug-14
% of useful life requirement	Manual	N	N	6	225/45 R1	2.76	CJAA	3375	20-Aug-14
% of useful life requirement	Manual	N	N	6	225/45 R1	2.76	CJAA	3375	20-Aug-14
% of useful life requirement	Manual	N	N	6	225/45 R1	2.76	CJAA	3375	20-Aug-14
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	29-Apr-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	5-May-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	5-May-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	5-May-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	5-May-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	5-May-15
% of useful life requirement	Automatic	Y	N	6	-	-	-	-	5-May-15

Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	Y	N	6	-	-	-	-		5-May-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15
Automatic	% of useful life requirement	N	N	6	215/55 R1		3.5	CBUA	3625	20-Jan-15

Automatic % of useful life requirement	N	N	6	215/55 R17	3.5	CBUA	3625	20-Jan-15
Automatic % of useful life requirement	N	N	6	215/55 R17	3.5	CBUA	3625	20-Jan-15
Automatic % of useful life requirement	N	N	6	215/55 R17	3.5	CBUA	3625	20-Jan-15
Automatic % of useful life requirement	N	N	6	215/55 R17	3.5	CBUA	3625	20-Jan-15
Automatic % of useful life requirement	N	N	6	215/55 R17	3.5	CBUA	3625	20-Jan-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Semi-Auto % of useful life requirement	Y	N	6	-	-	-	-	27-Apr-15
Automatic % of useful life requirement	N	N	6	205/55 R16	3.5	CBUA	3500	11-Dec-14
Automatic % of useful life requirement	N	N	6	205/55 R16	3.5	CBUA	3500	11-Dec-14
Automatic % of useful life requirement	N	N	6	205/55 R16	3.5	CBUA	3500	11-Dec-14
Automatic % of useful life requirement	N	N	6	205/55 R16	3.5	CBUA	3500	11-Dec-14
Automatic % of useful life requirement	N	N	6	205/55 R16	3.5	CBUA	3500	11-Dec-14
Automatic % of useful life requirement	N	N	6	205/55 R16	3.5	CBUA	3500	11-Dec-14

Automatic	% of useful life requirement	N	N	6205/55 R1(	3.5	CBUA	3500 11-Dec-14
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.5	CBUA	3500 11-Dec-14
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.5	CBUA	3500 11-Dec-14
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.5	CBUA	3500 11-Dec-14
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.5	CBUA	3500 11-Dec-14
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.5	CBUA	3500 11-Dec-14
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.5	CBUA	3500 11-Dec-14
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.5	CBUA	3500 11-Dec-14
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.5	CBUA	3500 11-Dec-14
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.5	CBUA	3500 11-Dec-14
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.5	CBUA	3500 11-Dec-14
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.5	CBUA	3500 11-Dec-14
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.5	CBUA	3500 11-Dec-14
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.5	CBUA	3500 11-Dec-14
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.5	CBUA	3500 11-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.5	CBUA	3500 9-Dec-14
Manual	% of useful life requirement	N	N	5215/60 R1(	3.65	CBUA	3625 23-Oct-14
Manual	% of useful life requirement	N	N	5215/60 R1(	3.65	CBUA	3625 23-Oct-14
Manual	% of useful life requirement	N	N	5215/60 R1(	3.65	CBUA	3625 23-Oct-14
Manual	% of useful life requirement	N	N	5215/60 R1(	3.65	CBUA	3625 23-Oct-14
Manual	% of useful life requirement	N	N	5215/60 R1(	3.65	CBUA	3625 23-Oct-14
Manual	% of useful life requirement	N	N	5215/60 R1(	3.65	CBUA	3625 23-Oct-14
Manual	% of useful life requirement	N	N	5215/60 R1(	3.65	CBUA	3625 23-Oct-14
Manual	% of useful life requirement	N	N	5215/60 R1(	3.65	CBUA	3625 23-Oct-14
Manual	% of useful life requirement	N	N	5215/60 R1(	3.65	CBUA	3625 23-Oct-14
Manual	% of useful life requirement	N	N	5215/60 R1(	3.65	CBUA	3625 23-Oct-14

% of useful life requirement	Manual	N	N	5	215/60 R1	3.65	CBUA	3625	23-Oct-14
% of useful life requirement	Manual	N	N	5	215/60 R1	3.65	CBUA	3625	23-Oct-14
% of useful life requirement	Manual	N	N	5	215/60 R1	3.65	CBUA	3625	23-Oct-14
% of useful life requirement	Manual	N	N	5	215/60 R1	3.65	CBUA	3625	23-Oct-14
% of useful life requirement	Manual	N	N	5	215/60 R1	3.65	CBUA	3625	23-Oct-14
% of useful life requirement	Manual	N	N	5	215/60 R1	3.65	CBUA	3625	23-Oct-14
% of useful life requirement	Manual	N	N	5	215/60 R1	3.65	CBUA	3625	23-Oct-14
% of useful life requirement	Manual	N	N	5	215/60 R1	3.65	CBUA	3625	23-Oct-14
% of useful life requirement	Manual	N	N	5	215/60 R1	3.65	CBUA	3625	23-Oct-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Manual	N	N	5	195/65 R1	3.39	CBUA	3250	5-Sep-14
% of useful life requirement	Automatic	N	N	6	215/55 R1	3.5	CBTA	3625	16-May-14
% of useful life requirement	Automatic	N	N	6	215/55 R1	3.5	CBTA	3625	16-May-14
% of useful life requirement	Automatic	N	N	6	215/55 R1	3.5	CBTA	3625	16-May-14
% of useful life requirement	Automatic	N	N	6	215/55 R1	3.5	CBTA	3625	16-May-14
% of useful life requirement	Automatic	N	N	6	215/55 R1	3.5	CBTA	3625	16-May-14
% of useful life requirement	Automatic	N	N	6	215/55 R1	3.5	CBTA	3625	16-May-14
% of useful life requirement	Automatic	N	N	6	215/55 R1	3.5	CBTA	3625	16-May-14
% of useful life requirement	Automatic	N	N	6	215/55 R1	3.5	CBTA	3625	16-May-14
% of useful life requirement	Automatic	N	N	6	215/55 R1	3.5	CBTA	3625	16-May-14
% of useful life requirement	Automatic	N	N	6	215/55 R1	3.5	CBTA	3625	16-May-14
% of useful life requirement	Automatic	N	N	6	215/55 R1	3.5	CBTA	3625	16-May-14
% of useful life requirement	Automatic	N	N	6	215/55 R1	3.5	CBTA	3625	16-May-14
% of useful life requirement	Automatic	N	N	6	215/55 R1	3.5	CBTA	3625	16-May-14
% of useful life requirement	Automatic	N	N	6	215/55 R1	3.5	CBTA	3625	16-May-14
% of useful life requirement	Automatic	N	N	6	215/55 R1	3.5	CBTA	3625	16-May-14
% of useful life requirement	Automatic	N	N	6	215/55 R1	3.5	CBTA	3625	16-May-14

Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	362516-May-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	362516-May-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	362516-May-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	362516-May-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	362516-May-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	362516-May-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6215/55 R1	3.5	CBTA	3500 24-Oct-14
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15
Automatic	% of useful life requirement	N	6205/55 R1	3.5	CBTA	3500 4-Feb-15

% of useful life requirement	N	N	6	205/55 R1	3.5	CBTA	3500	4-Feb-15
% of useful life requirement	N	N	6	205/55 R1	3.5	CBTA	3500	4-Feb-15
% of useful life requirement	N	N	6	205/55 R1	3.5	CBTA	3500	4-Feb-15
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	215/55 R1	3.65	CBTA	3625	22-Aug-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	5	205/55 R1	3.39	CBTA	3375	24-Oct-14
% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14

Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	24-Oct-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.44	CDVB	3750	30-Jul-14

Build Date	VisualMIL	Command MIL Status	Active TroubleCode Status	Readiness Status	Veh Reject	Veh Reject Comment	TroubleCode1	TroubleCode2	TroubleCode3
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
19-Apr-13	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-		-	-	-

11-Oct-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
6-Nov-12	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	Y	Vehicle wa-	-	-	-

25-May-12	N	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	N	Y	Vehicle wa-	-	-	-
25-May-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-

23-Aug-12	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	Y	Vehicle wa-	-	-	-
23-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	Y	Vehicle wa-	-	-	-

24-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
24-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
7-Apr-13	N	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-

28-Sep-12	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	Y	Vehicle wa-	-	-	-
28-Sep-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
10-Nov-12	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	Y	Vehicle wa-	-	-	-

27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-

1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
1-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
19-Feb-13 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-
3-May-12 N	N	N	Y	Vehicle wa-	-	-	-

19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	N	Y	Vehicle wa-	-	-	-

29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
29-Nov-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
12-Sep-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-

5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
5-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
7-Jun-12	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	Y	Vehicle wa-	-	-	-

16-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-

19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
19-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-

30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
30-Aug-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Apr-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-

4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Oct-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
4-Sep-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12	N	N	Y	Vehicle wa-	-	-	-

25-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
25-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
21-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13 N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13 N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13 N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13 N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13 N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13 N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13 N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13 N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13 N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13 N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13 N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13 N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13 N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13 N	N	N	Y	Vehicle wa-	-	-	-

5-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-

10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-

10-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Sep-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-

10-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
10-May-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-

22-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
22-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12 N	N	N	Y	Vehicle wa-	-	-	-

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10-Jun-12	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12	N	N	Y	Vehicle wa-	-	-	-
10-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
9-Jun-12	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12	N	N	Y	Vehicle wa-	-	-	-
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17-Jul-12	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12	N	N	Y	Vehicle wa-	-	-	-

17-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
17-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Apr-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-

10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
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10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
10-Jul-12	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	Y	Vehicle wa-	-	-	-
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11-Oct-12	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	Y	Vehicle wa-	-	-	-
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11-Oct-12	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	Y	Vehicle wa-	-	-	-

11-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
11-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
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30-Jan-13	N	N	N	Y	Vehicle wa-	-	-	-
17-May-13	N	N	N	Y	Vehicle wa-	-	-	-
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17-May-13	N	N	N	Y	Vehicle wa-	-	-	-
17-May-13	N	N	N	Y	Vehicle wa-	-	-	-
17-May-13	N	N	N	Y	Vehicle wa-	-	-	-

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17-May-13	N	N	N	Y	Vehicle wa-	-	-	-
17-May-13	N	N	N	Y	Vehicle wa-	-	-	-
17-May-13	N	N	N	Y	Vehicle wa-	-	-	-
17-May-13	N	N	N	Y	Vehicle wa-	-	-	-
17-May-13	N	N	N	Y	Vehicle wa-	-	-	-
17-May-13	N	N	N	Y	Vehicle wa-	-	-	-
17-May-13	N	N	N	Y	Vehicle wa-	-	-	-
17-May-13	N	N	N	Y	Vehicle wa-	-	-	-
17-May-13	N	N	N	Y	Vehicle wa-	-	-	-
17-May-13	N	N	N	Y	Vehicle wa-	-	-	-
17-May-13	N	N	N	Y	Vehicle wa-	-	-	-
17-May-13	N	N	N	Y	Vehicle wa-	-	-	-
17-May-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
3-Aug-12	N	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-

29-Sep-12	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	Y	Vehicle wa-	-	-	-
29-Sep-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
30-Oct-12	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12	N	N	Y	Vehicle wa-	-	-	-

20-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
20-Aug-12 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
10-Mar-13 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12 N	N	N	Y	Vehicle wa-	-	-	-

27-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
27-Jul-12	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Mar-13	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
31-Oct-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-

18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
18-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-
17-Sep-12	N	N	N	Y	Vehicle wa-	-	-	-

TroubleCode4	TroubleCode5	TroubleCode6	Veh Comment	Veh EPAAdditional Info	Veh EPAFlag	IncompleteReady1	IncompleteReady2	IncompleteReady3	IncompleteReady4
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
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-	-	-	-	N	N	-	-	-	-

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-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
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-	-	-	-	N	N	-	-	-	-
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-	-	-	-	N	N	-	-	-	-
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-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-

-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
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-	-	-	E P A I.D.N	N	-	-	-	-
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Incomplet eReady5	Incomplet eReady6	Incomplet eReady7	MFR LODTest Num	VerifyTest Num	MFRTest Lab	Odometer At Test	Fed PassFail Void	CA PassFail Void	Test Date
-	-	-	201410207	1026373	Test Cente	28932	Pass	Pass	20-Oct-14
-	-	-	201410207	1026373	Test Cente	28932	Pass	Pass	20-Oct-14
-	-	-	201410207	1026373	Test Cente	28932	Pass	Pass	20-Oct-14
-	-	-	201410217	1026375	Test Cente	28961	Pass	Pass	21-Oct-14
-	-	-	20141020	1026377	Test Cente	28961	Pass	Pass	20-Oct-14
-	-	-	201410217	1026375	Test Cente	28961	Pass	Pass	21-Oct-14
-	-	-	201410207	1026373	Test Cente	28932	Pass	Pass	20-Oct-14
-	-	-	201410217	1026374	Test Cente	28982	Pass	Pass	21-Oct-14
-	-	-	201410217	1026374	Test Cente	28982	Pass	Pass	21-Oct-14
-	-	-	201410217	1026374	Test Cente	28982	Pass	Pass	21-Oct-14
-	-	-	201410217	1026374	Test Cente	28982	Pass	Pass	21-Oct-14
-	-	-	201410217	1026375	Test Cente	28961	Pass	Pass	21-Oct-14
-	-	-	201410207	1026373	Test Cente	28932	Pass	Pass	20-Oct-14
-	-	-	201410207	1026373	Test Cente	28932	Pass	Pass	20-Oct-14
-	-	-	201410217	1026375	Test Cente	28961	Pass	Pass	21-Oct-14
-	-	-	201410207	1026373	Test Cente	28932	Pass	Pass	20-Oct-14
-	-	-	201410207	1026373	Test Cente	28932	Pass	Pass	20-Oct-14
-	-	-	201410217	1026375	Test Cente	28961	Pass	Pass	21-Oct-14
-	-	-	201410217	1026374	Test Cente	28982	Pass	Pass	21-Oct-14
-	-	-	201410207	1026373	Test Cente	28932	Pass	Pass	20-Oct-14
-	-	-	201410217	1026375	Test Cente	28961	Pass	Pass	21-Oct-14
-	-	-	20141028	1026376	Test Cente	29017	Pass	Pass	28-Oct-14
-	-	-	201405207	1023688	Test Cente	14849	Pass	Pass	20-May-14
-	-	-	201405207	1023688	Test Cente	14849	Pass	Pass	20-May-14
-	-	-	201405207	1023688	Test Cente	14849	Pass	Pass	20-May-14
-	-	-	201405207	1023688	Test Cente	14849	Pass	Pass	20-May-14
-	-	-	201405207	1023689	Test Cente	14881	Pass	Pass	20-May-14
-	-	-	201405207	1023689	Test Cente	14881	Pass	Pass	20-May-14
-	-	-	201405207	1023688	Test Cente	14849	Pass	Pass	20-May-14
-	-	-	201405207	1023688	Test Cente	14849	Pass	Pass	20-May-14
-	-	-	201405207	1023688	Test Cente	14849	Pass	Pass	20-May-14
-	-	-	201405207	1023690	Test Cente	14860	Pass	Pass	20-May-14
-	-	-	201405207	1023689	Test Cente	14881	Pass	Pass	20-May-14
-	-	-	201405207	1023690	Test Cente	14860	Pass	Pass	20-May-14
-	-	-	201405207	1023688	Test Cente	14849	Pass	Pass	20-May-14
-	-	-	201405207	1023690	Test Cente	14860	Pass	Pass	20-May-14
-	-	-	201405207	1023690	Test Cente	14860	Pass	Pass	20-May-14
-	-	-	201405207	1023688	Test Cente	14849	Pass	Pass	20-May-14
-	-	-	201405207	1023689	Test Cente	14881	Pass	Pass	20-May-14
-	-	-	201405207	1023689	Test Cente	14881	Pass	Pass	20-May-14
-	-	-	201405207	1023690	Test Cente	14860	Pass	Pass	20-May-14

-	-	-	20140520	1023690	Test Cente	14860	Pass	Pass	20-May-14
-	-	-	20140826	1025450	Test Cente	32168	Pass	Pass	26-Aug-14
-	-	-	20140826	1025451	Test Cente	32140	Pass	Pass	26-Aug-14
-	-	-	20140826	1025451	Test Cente	32140	Pass	Pass	26-Aug-14
-	-	-	20140827	1025447	Test Cente	32189	Pass	Pass	27-Aug-14
-	-	-	20140827	1025448	Test Cente	32168	Pass	Pass	27-Aug-14
-	-	-	20140826	1025451	Test Cente	32140	Pass	Pass	26-Aug-14
-	-	-	20140822	1025446	Test Cente	32121	Pass	Pass	22-Aug-14
-	-	-	20140822	1025446	Test Cente	32121	Pass	Pass	22-Aug-14
-	-	-	20140822	1025446	Test Cente	32121	Pass	Pass	22-Aug-14
-	-	-	20140827	1025447	Test Cente	32189	Pass	Pass	27-Aug-14
-	-	-	20140827	1025447	Test Cente	32189	Pass	Pass	27-Aug-14
-	-	-	20140827	1025448	Test Cente	32168	Pass	Pass	27-Aug-14
-	-	-	20140822	1025446	Test Cente	32121	Pass	Pass	22-Aug-14
-	-	-	20140827	1025447	Test Cente	32189	Pass	Pass	27-Aug-14
-	-	-	20140827	1025448	Test Cente	32168	Pass	Pass	27-Aug-14
-	-	-	20140822	1025446	Test Cente	32121	Pass	Pass	22-Aug-14
-	-	-	20140822	1025449	Test Cente	32132	Pass	Pass	22-Aug-14
-	-	-	20140826	1025451	Test Cente	32140	Pass	Pass	26-Aug-14
-	-	-	20140826	1025451	Test Cente	32140	Pass	Pass	26-Aug-14
-	-	-	20140822	1025446	Test Cente	32121	Pass	Pass	22-Aug-14
-	-	-	20140827	1025447	Test Cente	32189	Pass	Pass	27-Aug-14
-	-	-	20140827	1025448	Test Cente	32168	Pass	Pass	27-Aug-14
-	-	-	20140826	1025451	Test Cente	32140	Pass	Pass	26-Aug-14
-	-	-	20140822	1025446	Test Cente	32121	Pass	Pass	22-Aug-14
-	-	-	20140827	1025448	Test Cente	32168	Pass	Pass	27-Aug-14
-	-	-	20140826	1025451	Test Cente	32140	Pass	Pass	26-Aug-14
-	-	-	20140826	1025451	Test Cente	32140	Pass	Pass	26-Aug-14
-	-	-	20140826	1025451	Test Cente	32140	Pass	Pass	26-Aug-14
-	-	-	20140822	1025446	Test Cente	32121	Pass	Pass	22-Aug-14
-	-	-	20140822	1025446	Test Cente	32121	Pass	Pass	22-Aug-14
-	-	-	20140827	1025448	Test Cente	32168	Pass	Pass	27-Aug-14
-	-	-	20140807	1025477	Test Cente	24842	Pass	Pass	8-Jul-14
-	-	-	20140806	1025480	Test Cente	24822	Pass	Pass	6-Aug-14
-	-	-	20140806	1025476	Test Cente	24794	Pass	Pass	8-Jun-14
-	-	-	20140806	1025476	Test Cente	24794	Pass	Pass	8-Jun-14
-	-	-	20140807	1025478	Test Cente	24822	Pass	Pass	8-Jul-14
-	-	-	20140807	1025478	Test Cente	24822	Pass	Pass	8-Jul-14
-	-	-	20140812	1025479	Test Cente	24898	Pass	Pass	12-Aug-14
-	-	-	20140806	1025476	Test Cente	24794	Pass	Pass	8-Jun-14
-	-	-	20140806	1025476	Test Cente	24794	Pass	Pass	8-Jun-14
-	-	-	20140807	1025478	Test Cente	24822	Pass	Pass	8-Jul-14
-	-	-	20140807	1025478	Test Cente	24822	Pass	Pass	8-Jul-14
-	-	-	20140807	1025477	Test Cente	24842	Pass	Pass	8-Jul-14
-	-	-	20140806	1025476	Test Cente	24794	Pass	Pass	8-Jun-14

-	-	-	20140806	1025476	Test Cente	24794	Pass	Pass	8-Jun-14
-	-	-	20140806	1025476	Test Cente	24794	Pass	Pass	8-Jun-14
-	-	-	20140807	1025477	Test Cente	24842	Pass	Pass	8-Jul-14
-	-	-	20140807	1025477	Test Cente	24842	Pass	Pass	8-Jul-14
-	-	-	20140807	1025477	Test Cente	24842	Pass	Pass	8-Jul-14
-	-	-	20140807	1025478	Test Cente	24822	Pass	Pass	8-Jul-14
-	-	-	20140807	1025478	Test Cente	24822	Pass	Pass	8-Jul-14
-	-	-	20140806	1025476	Test Cente	24794	Pass	Pass	8-Jun-14
-	-	-	20140806	1025476	Test Cente	24794	Pass	Pass	8-Jun-14
-	-	-	20140625	1025226	Test Cente	16946	Pass	Pass	25-Jun-14
-	-	-	20140707	1025228	Test Cente	16992	Pass	Pass	7-Jul-14
-	-	-	20140708	1025227	Test Cente	17035	Pass	Pass	8-Jul-14
-	-	-	20140707	1025228	Test Cente	16992	Pass	Pass	7-Jul-14
-	-	-	20140628	1025231	Test Cente	16982	Pass	Pass	28-Jun-14
-	-	-	20140628	1025231	Test Cente	16982	Pass	Pass	28-Jun-14
-	-	-	20140625	1025226	Test Cente	16946	Pass	Pass	25-Jun-14
-	-	-	20140708	1025227	Test Cente	17035	Pass	Pass	8-Jul-14
-	-	-	20140707	1025228	Test Cente	16992	Pass	Pass	7-Jul-14
-	-	-	20140628	1025231	Test Cente	16982	Pass	Pass	28-Jun-14
-	-	-	20140625	1025226	Test Cente	16946	Pass	Pass	25-Jun-14
-	-	-	20140625	1025226	Test Cente	16946	Pass	Pass	25-Jun-14
-	-	-	20140707	1025228	Test Cente	16992	Pass	Pass	7-Jul-14
-	-	-	20140707	1025228	Test Cente	16992	Pass	Pass	7-Jul-14
-	-	-	20140626	1025230	Test Cente	16974	Pass	Pass	26-Jun-14
-	-	-	20140628	1025231	Test Cente	16982	Pass	Pass	28-Jun-14
-	-	-	20140625	1025226	Test Cente	16946	Pass	Pass	25-Jun-14
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-	-	-	20140625	1025226	Test Cente	16946	Pass	Pass	25-Jun-14
-	-	-	20140625	1025226	Test Cente	16946	Pass	Pass	25-Jun-14
-	-	-	20140708	1025227	Test Cente	17035	Pass	Pass	8-Jul-14
-	-	-	20140708	1025227	Test Cente	17035	Pass	Pass	8-Jul-14
-	-	-	20140628	1025229	Test Cente	16993	Pass	Pass	28-Jun-14
-	-	-	20140625	1025226	Test Cente	16946	Pass	Pass	25-Jun-14
-	-	-	20140708	1025227	Test Cente	17035	Pass	Pass	8-Jul-14
-	-	-	20140628	1025231	Test Cente	16982	Pass	Pass	28-Jun-14
-	-	-	20140628	1025231	Test Cente	16982	Pass	Pass	28-Jun-14
-	-	-	20140628	1025231	Test Cente	16982	Pass	Pass	28-Jun-14
-	-	-	20140628	1025231	Test Cente	16982	Pass	Pass	28-Jun-14
-	-	-	20140530	1023669	Test Cente	13211	Pass	Pass	30-May-14
-	-	-	20140530	1023670	Test Cente	13243	Pass	Pass	30-May-14
-	-	-	20140530	1023671	Test Cente	13222	Pass	Pass	30-May-14
-	-	-	20140530	1023671	Test Cente	13222	Pass	Pass	30-May-14
-	-	-	20140530	1023669	Test Cente	13211	Pass	Pass	30-May-14

-	-	-	20140530	1023670	Test Cente	13243	Pass	Pass	30-May-14
-	-	-	20140530	1023671	Test Cente	13222	Pass	Pass	30-May-14
-	-	-	20140530	1023669	Test Cente	13211	Pass	Pass	30-May-14
-	-	-	20140530	1023669	Test Cente	13211	Pass	Pass	30-May-14
-	-	-	20140530	1023670	Test Cente	13243	Pass	Pass	30-May-14
-	-	-	20140530	1023670	Test Cente	13243	Pass	Pass	30-May-14
-	-	-	20140530	1023671	Test Cente	13222	Pass	Pass	30-May-14
-	-	-	20140530	1023669	Test Cente	13211	Pass	Pass	30-May-14
-	-	-	20140530	1023671	Test Cente	13222	Pass	Pass	30-May-14
-	-	-	20140530	1023669	Test Cente	13211	Pass	Pass	30-May-14
-	-	-	20140530	1023669	Test Cente	13211	Pass	Pass	30-May-14
-	-	-	20140530	1023669	Test Cente	13211	Pass	Pass	30-May-14
-	-	-	20140530	1023669	Test Cente	13211	Pass	Pass	30-May-14
-	-	-	20140530	1023670	Test Cente	13243	Pass	Pass	30-May-14
-	-	-	20140530	1023671	Test Cente	13222	Pass	Pass	30-May-14
-	-	-	20150205	1027646	Test Cente	44421	Pass	Pass	5-Feb-15
-	-	-	20150205	1027646	Test Cente	44421	Pass	Pass	5-Feb-15
-	-	-	20150205	1027646	Test Cente	44421	Pass	Pass	5-Feb-15
-	-	-	20150205	1027648	Test Cente	44432	Pass	Pass	5-Feb-15
-	-	-	20150205	1027648	Test Cente	44432	Pass	Pass	5-Feb-15
-	-	-	20150205	1027647	Test Cente	44452	Pass	Pass	5-Feb-15
-	-	-	20150205	1027648	Test Cente	44432	Pass	Pass	5-Feb-15
-	-	-	20150205	1027646	Test Cente	44421	Pass	Pass	5-Feb-15
-	-	-	20150205	1027646	Test Cente	44421	Pass	Pass	5-Feb-15
-	-	-	20150205	1027646	Test Cente	44421	Pass	Pass	5-Feb-15
-	-	-	20150205	1027646	Test Cente	44421	Pass	Pass	5-Feb-15
-	-	-	20150205	1027646	Test Cente	44421	Pass	Pass	5-Feb-15
-	-	-	20150205	1027646	Test Cente	44421	Pass	Pass	5-Feb-15
-	-	-	20150205	1027648	Test Cente	44432	Pass	Pass	5-Feb-15
-	-	-	20150205	1027646	Test Cente	44421	Pass	Pass	5-Feb-15
-	-	-	20150205	1027647	Test Cente	44452	Pass	Pass	5-Feb-15
-	-	-	20150205	1027647	Test Cente	44452	Pass	Pass	5-Feb-15
-	-	-	20150205	1027647	Test Cente	44452	Pass	Pass	5-Feb-15
-	-	-	20150205	1027648	Test Cente	44432	Pass	Pass	5-Feb-15
-	-	-	20150205	1027648	Test Cente	44432	Pass	Pass	5-Feb-15
-	-	-	20150205	1027647	Test Cente	44452	Pass	Pass	5-Feb-15
-	-	-	20141211	1026890	Test Cente	46434	Pass	Pass	12-Nov-14
-	-	-	20141211	1026891	Test Cente	46445	Pass	Pass	12-Dec-14
-	-	-	20141212	1026892	Test Cente	46461	Pass	Pass	12-Nov-14
-	-	-	20141211	1026890	Test Cente	46434	Pass	Pass	12-Nov-14
-	-	-	20141211	1026890	Test Cente	46434	Pass	Pass	12-Nov-14
-	-	-	20141211	1026890	Test Cente	46434	Pass	Pass	12-Nov-14
-	-	-	20141211	1026891	Test Cente	46445	Pass	Pass	12-Dec-14
-	-	-	20141211	1026891	Test Cente	46445	Pass	Pass	12-Dec-14
-	-	-	20141212	1026892	Test Cente	46461	Pass	Pass	12-Nov-14

-	-	-	20141211	1026890	Test Cente	46434	Pass	Pass	12-Nov-14
-	-	-	20141211	1026890	Test Cente	46434	Pass	Pass	12-Nov-14
-	-	-	20141211	1026891	Test Cente	46445	Pass	Pass	12-Dec-14
-	-	-	20141212	1026892	Test Cente	46461	Pass	Pass	12-Nov-14
-	-	-	20141211	1026890	Test Cente	46434	Pass	Pass	12-Nov-14
-	-	-	20141211	1026891	Test Cente	46445	Pass	Pass	12-Dec-14
-	-	-	20141211	1026891	Test Cente	46445	Pass	Pass	12-Dec-14
-	-	-	20141212	1026892	Test Cente	46461	Pass	Pass	12-Nov-14
-	-	-	20141212	1026892	Test Cente	46461	Pass	Pass	12-Nov-14
-	-	-	20141211	1026890	Test Cente	46434	Pass	Pass	12-Nov-14
-	-	-	20141212	1026892	Test Cente	46461	Pass	Pass	12-Nov-14
-	-	-	20141211	1026890	Test Cente	46434	Pass	Pass	12-Nov-14
-	-	-	20141211	1026890	Test Cente	46434	Pass	Pass	12-Nov-14
p Desk	-	-	20141112	1026877	Test Cente	22393	Pass	Pass	12-Nov-14
p Desk	-	-	20141112	1026877	Test Cente	22393	Pass	Pass	12-Nov-14
p Desk	-	-	20141112	1026876	Test Cente	22429	Pass	Pass	11-Dec-14
p Desk	-	-	20141112	1026876	Test Cente	22429	Pass	Pass	11-Dec-14
p Desk	-	-	20141112	1026875	Test Cente	22382	Pass	Pass	11-Dec-14
p Desk	-	-	20141112	1026876	Test Cente	22429	Pass	Pass	11-Dec-14
p Desk	-	-	20141112	1026877	Test Cente	22393	Pass	Pass	12-Nov-14
p Desk	-	-	20141112	1026875	Test Cente	22382	Pass	Pass	11-Dec-14
p Desk	-	-	20141112	1026875	Test Cente	22382	Pass	Pass	11-Dec-14
p Desk	-	-	20141112	1026875	Test Cente	22382	Pass	Pass	11-Dec-14
p Desk	-	-	20141112	1026875	Test Cente	22382	Pass	Pass	11-Dec-14
p Desk	-	-	20141112	1026875	Test Cente	22382	Pass	Pass	11-Dec-14
p Desk	-	-	20141112	1026876	Test Cente	22429	Pass	Pass	11-Dec-14
p Desk	-	-	20141112	1026877	Test Cente	22393	Pass	Pass	12-Nov-14
p Desk	-	-	20141112	1026875	Test Cente	22382	Pass	Pass	11-Dec-14
p Desk	-	-	20141112	1026876	Test Cente	22429	Pass	Pass	11-Dec-14
p Desk	-	-	20141112	1026875	Test Cente	22382	Pass	Pass	11-Dec-14
p Desk	-	-	20141112	1026877	Test Cente	22393	Pass	Pass	12-Nov-14
p Desk	-	-	20141112	1026877	Test Cente	22393	Pass	Pass	12-Nov-14
p Desk	-	-	20141112	1026875	Test Cente	22382	Pass	Pass	11-Dec-14
p Desk	-	-	20141112	1026875	Test Cente	22382	Pass	Pass	11-Dec-14
-	-	-	20150206	1027656	Test Cente	41980	Pass	Pass	6-Feb-15
-	-	-	20150206	1027657	Test Cente	42010	Pass	Pass	6-Feb-15
-	-	-	20150206	1027656	Test Cente	41980	Pass	Pass	6-Feb-15
-	-	-	20150206	1027656	Test Cente	41980	Pass	Pass	6-Feb-15
-	-	-	20150206	1027657	Test Cente	42010	Pass	Pass	6-Feb-15
-	-	-	20150206	1027657	Test Cente	42010	Pass	Pass	6-Feb-15
-	-	-	20150206	1027656	Test Cente	41980	Pass	Pass	6-Feb-15
-	-	-	20150206	1027657	Test Cente	42010	Pass	Pass	6-Feb-15
-	-	-	20150206	1027658	Test Cente	41990	Pass	Pass	6-Feb-15
-	-	-	20150206	1027656	Test Cente	41980	Pass	Pass	6-Feb-15
-	-	-	20150206	1027656	Test Cente	41980	Pass	Pass	6-Feb-15

-	-	-	20150206	1027656	Test Cente	41980	Pass	Pass	6-Feb-15
-	-	-	20150206	1027658	Test Cente	41990	Pass	Pass	6-Feb-15
-	-	-	20150206	1027658	Test Cente	41990	Pass	Pass	6-Feb-15
-	-	-	20150206	1027656	Test Cente	41980	Pass	Pass	6-Feb-15
-	-	-	20150206	1027656	Test Cente	41980	Pass	Pass	6-Feb-15
-	-	-	20150206	1027657	Test Cente	42010	Pass	Pass	6-Feb-15
-	-	-	20150206	1027658	Test Cente	41990	Pass	Pass	6-Feb-15
-	-	-	20150206	1027658	Test Cente	41990	Pass	Pass	6-Feb-15
-	-	-	20150206	1027658	Test Cente	41990	Pass	Pass	6-Feb-15
-	-	-	20141015	1026390	Test Cente	16655	Pass	Pass	15-Oct-14
-	-	-	20141015	1026390	Test Cente	16655	Pass	Pass	15-Oct-14
-	-	-	20141015	1026390	Test Cente	16655	Pass	Pass	15-Oct-14
-	-	-	20141016	1026392	Test Cente	16683	Pass	Pass	16-Oct-14
-	-	-	20141021	1026393	Test Cente	16737	Pass	Pass	21-Oct-14
-	-	-	20141016	1026391	Test Cente	16703	Pass	Pass	16-Oct-14
-	-	-	20141016	1026391	Test Cente	16703	Pass	Pass	16-Oct-14
-	-	-	20141015	1026390	Test Cente	16655	Pass	Pass	15-Oct-14
-	-	-	20141016	1026392	Test Cente	16683	Pass	Pass	16-Oct-14
-	-	-	20141015	1026390	Test Cente	16655	Pass	Pass	15-Oct-14
-	-	-	20141016	1026391	Test Cente	16703	Pass	Pass	16-Oct-14
-	-	-	20141016	1026392	Test Cente	16683	Pass	Pass	16-Oct-14
-	-	-	20141016	1026394	Test Cente	16683	Pass	Pass	16-Oct-14
-	-	-	20141015	1026390	Test Cente	16655	Pass	Pass	15-Oct-14
-	-	-	20141016	1026391	Test Cente	16703	Pass	Pass	16-Oct-14
-	-	-	20141016	1026392	Test Cente	16683	Pass	Pass	16-Oct-14
-	-	-	20141015	1026390	Test Cente	16655	Pass	Pass	15-Oct-14
-	-	-	20141015	1026390	Test Cente	16655	Pass	Pass	15-Oct-14
-	-	-	20141016	1026391	Test Cente	16703	Pass	Pass	16-Oct-14
-	-	-	20141016	1026392	Test Cente	16683	Pass	Pass	16-Oct-14
-	-	-	20141015	1026390	Test Cente	16655	Pass	Pass	15-Oct-14
-	-	-	20141016	1026392	Test Cente	16683	Pass	Pass	16-Oct-14
-	-	-	20140924	1026240	Test Cente	21761	Pass	Pass	24-Sep-14
-	-	-	20140924	1026240	Test Cente	21761	Pass	Pass	24-Sep-14
-	-	-	20140925	1026241	Test Cente	21810	Pass	Pass	25-Sep-14
-	-	-	20140925	1026242	Test Cente	21789	Pass	Pass	25-Sep-14
-	-	-	20140926	1026243	Test Cente	21845	Pass	Pass	26-Sep-14
-	-	-	20140924	1026240	Test Cente	21761	Pass	Pass	24-Sep-14
-	-	-	20140925	1026241	Test Cente	21810	Pass	Pass	25-Sep-14
-	-	-	20140924	1026240	Test Cente	21761	Pass	Pass	24-Sep-14
-	-	-	20140924	1026240	Test Cente	21761	Pass	Pass	24-Sep-14
-	-	-	20140925	1026241	Test Cente	21810	Pass	Pass	25-Sep-14
-	-	-	20140924	1026240	Test Cente	21761	Pass	Pass	24-Sep-14
-	-	-	20140924	1026240	Test Cente	21761	Pass	Pass	24-Sep-14
-	-	-	20140925	1026241	Test Cente	21810	Pass	Pass	25-Sep-14
-	-	-	20140925	1026242	Test Cente	21789	Pass	Pass	25-Sep-14

-	-	-	20140925	1026242	Test Cente	21789	Pass	Pass	25-Sep-14
-	-	-	20140925	1026242	Test Cente	21789	Pass	Pass	25-Sep-14
-	-	-	20140924	1026240	Test Cente	21761	Pass	Pass	24-Sep-14
-	-	-	20140924	1026240	Test Cente	21761	Pass	Pass	24-Sep-14
-	-	-	20140925	1026241	Test Cente	21810	Pass	Pass	25-Sep-14
-	-	-	20140925	1026242	Test Cente	21789	Pass	Pass	25-Sep-14
-	-	-	20140925	1026242	Test Cente	21789	Pass	Pass	25-Sep-14
-	-	-	20140924	1026244	Test Cente	21789	Pass	Pass	24-Sep-14
-	-	-	20140827	1025434	Test Cente	16021	Pass	Pass	27-Aug-14
-	-	-	20140827	1025434	Test Cente	16021	Pass	Pass	27-Aug-14
-	-	-	20140827	1025434	Test Cente	16021	Pass	Pass	27-Aug-14
-	-	-	20140827	1025434	Test Cente	16021	Pass	Pass	27-Aug-14
-	-	-	20140828	1025435	Test Cente	16053	Pass	Pass	28-Aug-14
-	-	-	20140828	1025436	Test Cente	16032	Pass	Pass	28-Aug-14
-	-	-	20140827	1025434	Test Cente	16021	Pass	Pass	27-Aug-14
-	-	-	20140828	1025435	Test Cente	16053	Pass	Pass	28-Aug-14
-	-	-	20140828	1025436	Test Cente	16032	Pass	Pass	28-Aug-14
-	-	-	20140827	1025434	Test Cente	16021	Pass	Pass	27-Aug-14
-	-	-	20140828	1025436	Test Cente	16032	Pass	Pass	28-Aug-14
-	-	-	20140827	1025434	Test Cente	16021	Pass	Pass	27-Aug-14
-	-	-	20140828	1025435	Test Cente	16053	Pass	Pass	28-Aug-14
-	-	-	20140828	1025436	Test Cente	16032	Pass	Pass	28-Aug-14
-	-	-	20140828	1025436	Test Cente	16032	Pass	Pass	28-Aug-14
-	-	-	20140827	1025434	Test Cente	16021	Pass	Pass	27-Aug-14
-	-	-	20140827	1025434	Test Cente	16021	Pass	Pass	27-Aug-14
-	-	-	20140828	1025435	Test Cente	16053	Pass	Pass	28-Aug-14
-	-	-	20140828	1025435	Test Cente	16053	Pass	Pass	28-Aug-14
-	-	-	20140828	1025436	Test Cente	16032	Pass	Pass	28-Aug-14
-	-	-	20141216	1027479	Test Cente	42322	Pass	Pass	16-Dec-14
-	-	-	20141216	1027479	Test Cente	42322	Pass	Pass	16-Dec-14
-	-	-	20141217	1027480	Test Cente	42354	Pass	Pass	17-Dec-14
-	-	-	20141216	1027479	Test Cente	42322	Pass	Pass	16-Dec-14
-	-	-	20141216	1027479	Test Cente	42322	Pass	Pass	16-Dec-14
-	-	-	20141217	1027480	Test Cente	42354	Pass	Pass	17-Dec-14
-	-	-	20141216	1027479	Test Cente	42322	Pass	Pass	16-Dec-14
-	-	-	20141216	1027479	Test Cente	42322	Pass	Pass	16-Dec-14
-	-	-	20141216	1027479	Test Cente	42322	Pass	Pass	16-Dec-14
-	-	-	20150106	1027481	Test Cente	42459	Pass	Pass	6-Jan-15
-	-	-	20141217	1027480	Test Cente	42354	Pass	Pass	17-Dec-14
-	-	-	20150106	1027481	Test Cente	42459	Pass	Pass	6-Jan-15
-	-	-	20150106	1027481	Test Cente	42459	Pass	Pass	6-Jan-15
-	-	-	20141217	1027480	Test Cente	42354	Pass	Pass	17-Dec-14
-	-	-	20150106	1027481	Test Cente	42459	Pass	Pass	6-Jan-15
-	-	-	20150106	1027481	Test Cente	42459	Pass	Pass	6-Jan-15
-	-	-	20141216	1027479	Test Cente	42322	Pass	Pass	16-Dec-14

-	-	-	20150106	1027481	Test Cente	42459	Pass	Pass	6-Jan-15
-	-	-	20141216	1027479	Test Cente	42322	Pass	Pass	16-Dec-14
-	-	-	20141217	1027480	Test Cente	42354	Pass	Pass	17-Dec-14
-	-	-	20141210	1026972	Test Cente	21683	Pass	Pass	10-Dec-14
-	-	-	20141210	1026972	Test Cente	21683	Pass	Pass	10-Dec-14
-	-	-	20141210	1026972	Test Cente	21683	Pass	Pass	10-Dec-14
-	-	-	20141210	1026972	Test Cente	21683	Pass	Pass	10-Dec-14
-	-	-	20141210	1026972	Test Cente	21683	Pass	Pass	10-Dec-14
-	-	-	20141210	1026972	Test Cente	21683	Pass	Pass	10-Dec-14
-	-	-	20141210	1026972	Test Cente	21683	Pass	Pass	10-Dec-14
-	-	-	20141210	1026973	Test Cente	21694	Pass	Pass	10-Dec-14
-	-	-	20141210	1026973	Test Cente	21694	Pass	Pass	10-Dec-14
-	-	-	20141210	1026973	Test Cente	21694	Pass	Pass	10-Dec-14
-	-	-	20141210	1026973	Test Cente	21694	Pass	Pass	10-Dec-14
-	-	-	20141211	1026974	Test Cente	21718	Pass	Pass	11-Dec-14
-	-	-	20141210	1026972	Test Cente	21683	Pass	Pass	10-Dec-14
-	-	-	20141211	1026974	Test Cente	21718	Pass	Pass	11-Dec-14
-	-	-	20141210	1026972	Test Cente	21683	Pass	Pass	10-Dec-14
-	-	-	20141210	1026973	Test Cente	21694	Pass	Pass	10-Dec-14
-	-	-	20141211	1026974	Test Cente	21718	Pass	Pass	11-Dec-14
-	-	-	20141211	1026974	Test Cente	21718	Pass	Pass	11-Dec-14
-	-	-	20141211	1026974	Test Cente	21718	Pass	Pass	11-Dec-14
-	-	-	20141211	1026974	Test Cente	21718	Pass	Pass	11-Dec-14
-	-	-	20140912	1026289	Test Cente	40694	Pass	Pass	12-Sep-14
-	-	-	20140912	1026289	Test Cente	40694	Pass	Pass	12-Sep-14
-	-	-	20140912	1026289	Test Cente	40694	Pass	Pass	12-Sep-14
-	-	-	20140917	1026290	Test Cente	40807	Pass	Pass	17-Sep-14
-	-	-	20140917	1026291	Test Cente	40787	Pass	Pass	17-Sep-14
-	-	-	20140917	1026290	Test Cente	40807	Pass	Pass	17-Sep-14
-	-	-	20140912	1026289	Test Cente	40694	Pass	Pass	12-Sep-14
-	-	-	20140917	1026291	Test Cente	40787	Pass	Pass	17-Sep-14
-	-	-	20140917	1026291	Test Cente	40787	Pass	Pass	17-Sep-14
-	-	-	20140912	1026289	Test Cente	40694	Pass	Pass	12-Sep-14
-	-	-	20140912	1026289	Test Cente	40694	Pass	Pass	12-Sep-14
-	-	-	20140917	1026290	Test Cente	40807	Pass	Pass	17-Sep-14
-	-	-	20140917	1026290	Test Cente	40807	Pass	Pass	17-Sep-14
-	-	-	20140917	1026291	Test Cente	40787	Pass	Pass	17-Sep-14
-	-	-	20140917	1026291	Test Cente	40787	Pass	Pass	17-Sep-14
-	-	-	20140916	1026293	Test Cente	40776	Pass	Pass	16-Sep-14
-	-	-	20140913	1026292	Test Cente	40705	Pass	Pass	13-Sep-14
-	-	-	20140912	1026289	Test Cente	40694	Pass	Pass	12-Sep-14
-	-	-	20140912	1026289	Test Cente	40694	Pass	Pass	12-Sep-14
-	-	-	20140912	1026289	Test Cente	40694	Pass	Pass	12-Sep-14
-	-	-	20140917	1026290	Test Cente	40807	Pass	Pass	17-Sep-14
-	-	-	20140917	1026291	Test Cente	40787	Pass	Pass	17-Sep-14

-	-	-	20140702	1025464	Test Cente	36164	Pass	Pass	7-Feb-14
-	-	-	20140707	1025465	Test Cente	36214	Pass	Pass	7-Jul-14
-	-	-	20140707	1025466	Test Cente	36193	Pass	Pass	7-Jul-14
-	-	-	20140707	1025466	Test Cente	36193	Pass	Pass	7-Jul-14
-	-	-	20140702	1025464	Test Cente	36164	Pass	Pass	7-Feb-14
-	-	-	20140707	1025465	Test Cente	36214	Pass	Pass	7-Jul-14
-	-	-	20140707	1025465	Test Cente	36214	Pass	Pass	7-Jul-14
-	-	-	20140707	1025466	Test Cente	36193	Pass	Pass	7-Jul-14
-	-	-	20140707	1025466	Test Cente	36193	Pass	Pass	7-Jul-14
-	-	-	20140702	1025464	Test Cente	36164	Pass	Pass	7-Feb-14
-	-	-	20140702	1025464	Test Cente	36164	Pass	Pass	7-Feb-14
-	-	-	20140702	1025464	Test Cente	36164	Pass	Pass	7-Feb-14
-	-	-	20140702	1025464	Test Cente	36164	Pass	Pass	7-Feb-14
-	-	-	20140707	1025466	Test Cente	36193	Pass	Pass	7-Jul-14
-	-	-	20140707	1025466	Test Cente	36193	Pass	Pass	7-Jul-14
-	-	-	20140708	1025467	Test Cente	36249	Pass	Pass	8-Jul-14
-	-	-	20140702	1025464	Test Cente	36164	Pass	Pass	7-Feb-14
-	-	-	20140702	1025464	Test Cente	36164	Pass	Pass	7-Feb-14
-	-	-	20140702	1025464	Test Cente	36164	Pass	Pass	7-Feb-14
-	-	-	20140707	1025465	Test Cente	36214	Pass	Pass	7-Jul-14
-	-	-	20140707	1025465	Test Cente	36214	Pass	Pass	7-Jul-14
-	-	-	20140703	1025468	Test Cente	36193	Pass	Pass	3-Jul-14
-	-	-	20150108	1027474	Test Cente	11811	Pass	Pass	8-Jan-15
-	-	-	20150108	1027474	Test Cente	11811	Pass	Pass	8-Jan-15
-	-	-	20150108	1027474	Test Cente	11811	Pass	Pass	8-Jan-15
-	-	-	20150114	1027476	Test Cente	11865	Pass	Pass	14-Jan-15
-	-	-	20150108	1027474	Test Cente	11811	Pass	Pass	8-Jan-15
-	-	-	20150113	1027478	Test Cente	11865	Pass	Pass	13-Jan-15
-	-	-	20150108	1027474	Test Cente	11811	Pass	Pass	8-Jan-15
-	-	-	20150114	1027475	Test Cente	11885	Pass	Pass	14-Jan-15
-	-	-	20150108	1027474	Test Cente	11811	Pass	Pass	8-Jan-15
-	-	-	20150108	1027474	Test Cente	11811	Pass	Pass	8-Jan-15
-	-	-	20150114	1027475	Test Cente	11885	Pass	Pass	14-Jan-15
-	-	-	20150114	1027476	Test Cente	11865	Pass	Pass	14-Jan-15
-	-	-	20150108	1027474	Test Cente	11811	Pass	Pass	8-Jan-15
-	-	-	20150108	1027474	Test Cente	11811	Pass	Pass	8-Jan-15
-	-	-	20150114	1027475	Test Cente	11885	Pass	Pass	14-Jan-15
-	-	-	20150108	1027477	Test Cente	11822	Pass	Pass	8-Jan-15
-	-	-	20150114	1027476	Test Cente	11865	Pass	Pass	14-Jan-15
-	-	-	20150114	1027475	Test Cente	11885	Pass	Pass	14-Jan-15
-	-	-	20150114	1027476	Test Cente	11865	Pass	Pass	14-Jan-15
-	-	-	20150114	1027475	Test Cente	11885	Pass	Pass	14-Jan-15
-	-	-	20150114	1027476	Test Cente	11865	Pass	Pass	14-Jan-15
-	-	-	20150114	1027476	Test Cente	11865	Pass	Pass	14-Jan-15
-	-	-	20141125	1026900	Test Cente	11505	Pass	Pass	25-Nov-14

-	-	-	20141126	1026901	Test Cente	11552	Pass	Pass	26-Nov-14
-	-	-	20141126	1026902	Test Cente	11533	Pass	Pass	26-Nov-14
-	-	-	20141125	1026900	Test Cente	11505	Pass	Pass	25-Nov-14
-	-	-	20141126	1026901	Test Cente	11552	Pass	Pass	26-Nov-14
-	-	-	20141126	1026902	Test Cente	11533	Pass	Pass	26-Nov-14
-	-	-	20141126	1026902	Test Cente	11533	Pass	Pass	26-Nov-14
-	-	-	20141125	1026900	Test Cente	11505	Pass	Pass	25-Nov-14
-	-	-	20141125	1026900	Test Cente	11505	Pass	Pass	25-Nov-14
-	-	-	20141125	1026900	Test Cente	11505	Pass	Pass	25-Nov-14
-	-	-	20141126	1026902	Test Cente	11533	Pass	Pass	26-Nov-14
-	-	-	20141125	1026900	Test Cente	11505	Pass	Pass	25-Nov-14
-	-	-	20141125	1026900	Test Cente	11505	Pass	Pass	25-Nov-14
-	-	-	20141125	1026900	Test Cente	11505	Pass	Pass	25-Nov-14
-	-	-	20141126	1026901	Test Cente	11552	Pass	Pass	26-Nov-14
-	-	-	20141126	1026901	Test Cente	11552	Pass	Pass	26-Nov-14
-	-	-	20141125	1026900	Test Cente	11505	Pass	Pass	25-Nov-14
-	-	-	20141126	1026902	Test Cente	11533	Pass	Pass	26-Nov-14
-	-	-	20141126	1026904	Test Cente	11533	Pass	Pass	26-Nov-14
-	-	-	20141126	1026901	Test Cente	11552	Pass	Pass	26-Nov-14
-	-	-	20141126	1026902	Test Cente	11533	Pass	Pass	26-Nov-14
-	-	-	20141202	1026903	Test Cente	11586	Pass	Pass	2-Dec-14
-	-	-	20140826	1025440	Test Cente	44084	Pass	Pass	26-Aug-14
-	-	-	20140827	1025441	Test Cente	44116	Pass	Pass	27-Aug-14
-	-	-	20140826	1025440	Test Cente	44084	Pass	Pass	26-Aug-14
-	-	-	20140827	1025441	Test Cente	44116	Pass	Pass	27-Aug-14
-	-	-	20140827	1025441	Test Cente	44116	Pass	Pass	27-Aug-14
-	-	-	20140827	1025442	Test Cente	44095	Pass	Pass	27-Aug-14
-	-	-	20140827	1025442	Test Cente	44095	Pass	Pass	27-Aug-14
-	-	-	20140826	1025440	Test Cente	44084	Pass	Pass	26-Aug-14
-	-	-	20140826	1025440	Test Cente	44084	Pass	Pass	26-Aug-14
-	-	-	20140826	1025440	Test Cente	44084	Pass	Pass	26-Aug-14
-	-	-	20140826	1025440	Test Cente	44084	Pass	Pass	26-Aug-14
-	-	-	20140827	1025442	Test Cente	44095	Pass	Pass	27-Aug-14
-	-	-	20140827	1025442	Test Cente	44095	Pass	Pass	27-Aug-14
-	-	-	20140826	1025440	Test Cente	44084	Pass	Pass	26-Aug-14
-	-	-	20140827	1025441	Test Cente	44116	Pass	Pass	27-Aug-14
-	-	-	20140827	1025441	Test Cente	44116	Pass	Pass	27-Aug-14
-	-	-	20140827	1025442	Test Cente	44095	Pass	Pass	27-Aug-14
-	-	-	20140827	1025442	Test Cente	44095	Pass	Pass	27-Aug-14
-	-	-	20140826	1025440	Test Cente	44084	Pass	Pass	26-Aug-14
-	-	-	20140826	1025440	Test Cente	44084	Pass	Pass	26-Aug-14
-	-	-	20140903	1025679	DUMMY A	37346	Pass	Pass	9-Mar-14
-	-	-	20140904	1025680	DUMMY A	37395	Pass	Pass	9-Apr-14
-	-	-	20140903	1025679	DUMMY A	37346	Pass	Pass	9-Mar-14
-	-	-	20140903	1025679	DUMMY A	37346	Pass	Pass	9-Mar-14

-	-	-	20140903	1025679	DUMMY A	37346	Pass	Pass	9-Mar-14
-	-	-	20140904	1025681	DUMMY A	37374	Pass	Pass	4-Sep-14
-	-	-	20140904	1025680	DUMMY A	37395	Pass	Pass	9-Apr-14
-	-	-	20140904	1025680	DUMMY A	37395	Pass	Pass	9-Apr-14
-	-	-	20140904	1025681	DUMMY A	37374	Pass	Pass	4-Sep-14
-	-	-	20140903	1025682	DUMMY A	37374	Pass	Pass	3-Sep-14
-	-	-	20140903	1025679	DUMMY A	37346	Pass	Pass	9-Mar-14
-	-	-	20140903	1025679	DUMMY A	37346	Pass	Pass	9-Mar-14
-	-	-	20140903	1025679	DUMMY A	37346	Pass	Pass	9-Mar-14
-	-	-	20140904	1025680	DUMMY A	37395	Pass	Pass	9-Apr-14
-	-	-	20140904	1025681	DUMMY A	37374	Pass	Pass	4-Sep-14
-	-	-	20140910	1025683	DUMMY A	37496	Pass	Pass	10-Sep-14
-	-	-	20140903	1025679	DUMMY A	37346	Pass	Pass	9-Mar-14
-	-	-	20140903	1025679	DUMMY A	37346	Pass	Pass	9-Mar-14
-	-	-	20140904	1025681	DUMMY A	37374	Pass	Pass	4-Sep-14
-	-	-	20140904	1025681	DUMMY A	37374	Pass	Pass	4-Sep-14
-	-	-	20140904	1025680	DUMMY A	37395	Pass	Pass	9-Apr-14
-	-	-	20140904	1025681	DUMMY A	37374	Pass	Pass	4-Sep-14
-	-	-	20141120	1026951	Test Cente	19042	Pass	Pass	20-Nov-14
-	-	-	20141120	1026951	Test Cente	19042	Pass	Pass	20-Nov-14
-	-	-	20141126	1026954	Test Cente	19170	Pass	Pass	26-Nov-14
-	-	-	20141124	1026955	Test Cente	19107	Pass	Pass	24-Nov-14
-	-	-	20141120	1026951	Test Cente	19042	Pass	Pass	20-Nov-14
-	-	-	20141120	1026951	Test Cente	19042	Pass	Pass	20-Nov-14
-	-	-	20141125	1026952	Test Cente	19127	Pass	Pass	25-Nov-14
-	-	-	20141125	1026953	Test Cente	19107	Pass	Pass	25-Nov-14
-	-	-	20141120	1026951	Test Cente	19042	Pass	Pass	20-Nov-14
-	-	-	20141125	1026952	Test Cente	19127	Pass	Pass	25-Nov-14
-	-	-	20141120	1026951	Test Cente	19042	Pass	Pass	20-Nov-14
-	-	-	20141125	1026952	Test Cente	19127	Pass	Pass	25-Nov-14
-	-	-	20141125	1026953	Test Cente	19107	Pass	Pass	25-Nov-14
-	-	-	20141125	1026953	Test Cente	19107	Pass	Pass	25-Nov-14
-	-	-	20141125	1026953	Test Cente	19107	Pass	Pass	25-Nov-14
-	-	-	20141125	1026952	Test Cente	19127	Pass	Pass	25-Nov-14
-	-	-	20141120	1026951	Test Cente	19042	Pass	Pass	20-Nov-14
-	-	-	20141125	1026952	Test Cente	19127	Pass	Pass	25-Nov-14
-	-	-	20141125	1026953	Test Cente	19107	Pass	Pass	25-Nov-14
-	-	-	20141120	1026951	Test Cente	19042	Pass	Pass	20-Nov-14
-	-	-	20141120	1026951	Test Cente	19042	Pass	Pass	20-Nov-14
-	-	-	20141125	1026953	Test Cente	19107	Pass	Pass	25-Nov-14
-	-	-	20141024	1026354	Test Cente	18557	Pass	Pass	24-Oct-14
-	-	-	20141024	1026354	Test Cente	18557	Pass	Pass	24-Oct-14
-	-	-	20141024	1026354	Test Cente	18557	Pass	Pass	24-Oct-14
-	-	-	20141024	1026355	Test Cente	18568	Pass	Pass	24-Oct-14
-	-	-	20141024	1026355	Test Cente	18568	Pass	Pass	24-Oct-14

-	-	-	20141024	1026355	Test Cente	18568	Pass	Pass	24-Oct-14
-	-	-	20141027	1026356	Test Cente	18584	Pass	Pass	27-Oct-14
-	-	-	20141027	1026356	Test Cente	18584	Pass	Pass	27-Oct-14
-	-	-	20141024	1026354	Test Cente	18557	Pass	Pass	24-Oct-14
-	-	-	20141027	1026356	Test Cente	18584	Pass	Pass	27-Oct-14
-	-	-	20141024	1026354	Test Cente	18557	Pass	Pass	24-Oct-14
-	-	-	20141024	1026354	Test Cente	18557	Pass	Pass	24-Oct-14
-	-	-	20141024	1026354	Test Cente	18557	Pass	Pass	24-Oct-14
-	-	-	20141024	1026355	Test Cente	18568	Pass	Pass	24-Oct-14
-	-	-	20141024	1026355	Test Cente	18568	Pass	Pass	24-Oct-14
-	-	-	20141027	1026356	Test Cente	18584	Pass	Pass	27-Oct-14
-	-	-	20141027	1026356	Test Cente	18584	Pass	Pass	27-Oct-14
-	-	-	20141024	1026354	Test Cente	18557	Pass	Pass	24-Oct-14
-	-	-	20141024	1026354	Test Cente	18557	Pass	Pass	24-Oct-14
-	-	-	20141027	1026356	Test Cente	18584	Pass	Pass	27-Oct-14
-	-	-	20140905	1025584	Test Cente	17221	Pass	Pass	5-Sep-14
-	-	-	20140905	1025584	Test Cente	17221	Pass	Pass	5-Sep-14
-	-	-	20140910	1025586	Test Cente	17303	Pass	Pass	10-Sep-14
-	-	-	20140905	1025587	Test Cente	17221	Pass	Pass	5-Sep-14
-	-	-	20140905	1025584	Test Cente	17221	Pass	Pass	5-Sep-14
-	-	-	20140905	1025584	Test Cente	17221	Pass	Pass	5-Sep-14
-	-	-	20140910	1025585	Test Cente	17324	Pass	Pass	10-Sep-14
-	-	-	20140910	1025586	Test Cente	17303	Pass	Pass	10-Sep-14
-	-	-	20140905	1025584	Test Cente	17221	Pass	Pass	5-Sep-14
-	-	-	20140905	1025584	Test Cente	17221	Pass	Pass	5-Sep-14
-	-	-	20140910	1025585	Test Cente	17324	Pass	Pass	10-Sep-14
-	-	-	20140910	1025586	Test Cente	17303	Pass	Pass	10-Sep-14
-	-	-	20140910	1025585	Test Cente	17324	Pass	Pass	10-Sep-14
-	-	-	20140910	1025586	Test Cente	17303	Pass	Pass	10-Sep-14
-	-	-	20140905	1025584	Test Cente	17221	Pass	Pass	5-Sep-14
-	-	-	20140910	1025585	Test Cente	17324	Pass	Pass	10-Sep-14
-	-	-	20140910	1025586	Test Cente	17303	Pass	Pass	10-Sep-14
-	-	-	20140905	1025584	Test Cente	17221	Pass	Pass	5-Sep-14
-	-	-	20140910	1025585	Test Cente	17324	Pass	Pass	10-Sep-14
-	-	-	20140910	1025586	Test Cente	17303	Pass	Pass	10-Sep-14
-	-	-	20140905	1025584	Test Cente	17221	Pass	Pass	5-Sep-14
-	-	-	20140909	1025588	Test Cente	17303	Pass	Pass	9-Sep-14
-	-	-	20140709	1025756	Test Cente	36080	Pass	Pass	9-Jul-14
-	-	-	20140709	1025755	Test Cente	36101	Pass	Pass	7-Sep-14
-	-	-	20140710	1025757	Test Cente	36124	Pass	Pass	10-Jul-14
-	-	-	20140709	1025756	Test Cente	36080	Pass	Pass	9-Jul-14
-	-	-	20140709	1025755	Test Cente	36101	Pass	Pass	7-Sep-14
-	-	-	20140709	1025755	Test Cente	36101	Pass	Pass	7-Sep-14
-	-	-	20140710	1025757	Test Cente	36124	Pass	Pass	10-Jul-14
-	-	-	20140710	1025757	Test Cente	36124	Pass	Pass	10-Jul-14

-	-	-	20140709	1025755	Test Cente	36101	Pass	Pass	7-Sep-14
-	-	-	20140710	1025757	Test Cente	36124	Pass	Pass	10-Jul-14
-	-	-	20140710	1025757	Test Cente	36124	Pass	Pass	10-Jul-14
-	-	-	20140709	1025756	Test Cente	36080	Pass	Pass	9-Jul-14
-	-	-	20140709	1025755	Test Cente	36101	Pass	Pass	7-Sep-14
-	-	-	20140710	1025757	Test Cente	36124	Pass	Pass	10-Jul-14
-	-	-	20140710	1025757	Test Cente	36124	Pass	Pass	10-Jul-14
-	-	-	20140710	1025757	Test Cente	36124	Pass	Pass	10-Jul-14
-	-	-	20140709	1025756	Test Cente	36080	Pass	Pass	9-Jul-14
-	-	-	20140709	1025756	Test Cente	36080	Pass	Pass	9-Jul-14
-	-	-	20140710	1025757	Test Cente	36124	Pass	Pass	10-Jul-14
-	-	-	20140709	1025755	Test Cente	36101	Pass	Pass	7-Sep-14
-	-	-	20140710	1025757	Test Cente	36124	Pass	Pass	10-Jul-14
-	-	-	20140709	1025756	Test Cente	36080	Pass	Pass	9-Jul-14
-	-	-	20140709	1025756	Test Cente	36080	Pass	Pass	9-Jul-14
-	-	-	20140923	1026279	Test Cente	19044	Pass	Pass	23-Sep-14
-	-	-	20140924	1026260	Test Cente	19104	Pass	Pass	24-Sep-14
-	-	-	20141006	1026263	Test Cente	19181	Pass	Pass	6-Oct-14
-	-	-	20140923	1026279	Test Cente	19044	Pass	Pass	23-Sep-14
-	-	-	20140924	1026261	Test Cente	19083	Pass	Pass	24-Sep-14
-	-	-	20140924	1026261	Test Cente	19083	Pass	Pass	24-Sep-14
-	-	-	20140923	1026279	Test Cente	19044	Pass	Pass	23-Sep-14
-	-	-	20140924	1026260	Test Cente	19104	Pass	Pass	24-Sep-14
-	-	-	20140924	1026261	Test Cente	19083	Pass	Pass	24-Sep-14
-	-	-	20140924	1026261	Test Cente	19083	Pass	Pass	24-Sep-14
-	-	-	20140924	1026260	Test Cente	19104	Pass	Pass	24-Sep-14
-	-	-	20140924	1026260	Test Cente	19104	Pass	Pass	24-Sep-14
-	-	-	20140924	1026261	Test Cente	19083	Pass	Pass	24-Sep-14
-	-	-	20140923	1026279	Test Cente	19044	Pass	Pass	23-Sep-14
-	-	-	20140923	1026279	Test Cente	19044	Pass	Pass	23-Sep-14
-	-	-	20140924	1026260	Test Cente	19104	Pass	Pass	24-Sep-14
-	-	-	20140924	1026261	Test Cente	19083	Pass	Pass	24-Sep-14
-	-	-	20140924	1026261	Test Cente	19083	Pass	Pass	24-Sep-14
-	-	-	20141007	1026262	Test Cente	19204	Pass	Pass	7-Oct-14
-	-	-	20140923	1026279	Test Cente	19044	Pass	Pass	23-Sep-14
-	-	-	20140923	1026279	Test Cente	19044	Pass	Pass	23-Sep-14
-	-	-	20140924	1026260	Test Cente	19104	Pass	Pass	24-Sep-14
-	-	-	20140923	1026279	Test Cente	19044	Pass	Pass	23-Sep-14
-	-	-	20140923	1026279	Test Cente	19044	Pass	Pass	23-Sep-14
-	-	-	20140923	1026279	Test Cente	19044	Pass	Pass	23-Sep-14
-	-	-	20141027	1026439	Test Cente	31868	Pass	Pass	27-Oct-14
-	-	-	20141027	1026439	Test Cente	31868	Pass	Pass	27-Oct-14
-	-	-	20141027	1026439	Test Cente	31868	Pass	Pass	27-Oct-14
-	-	-	20141107	1026442	Test Cente	31952	Pass	Pass	7-Nov-14
-	-	-	20141027	1026439	Test Cente	31868	Pass	Pass	27-Oct-14

-	-	-	20141028	1026441	Test Cente	31896	Pass	Pass	28-Oct-14
-	-	-	20141028	1026443	Test Cente	31896	Pass	Pass	28-Oct-14
-	-	-	20141027	1026439	Test Cente	31868	Pass	Pass	27-Oct-14
-	-	-	20141028	1026441	Test Cente	31896	Pass	Pass	28-Oct-14
-	-	-	20141027	1026439	Test Cente	31868	Pass	Pass	27-Oct-14
-	-	-	20141027	1026439	Test Cente	31868	Pass	Pass	27-Oct-14
-	-	-	20141028	1026440	Test Cente	31917	Pass	Pass	28-Oct-14
-	-	-	20141028	1026441	Test Cente	31896	Pass	Pass	28-Oct-14
-	-	-	20141028	1026440	Test Cente	31917	Pass	Pass	28-Oct-14
-	-	-	20141028	1026440	Test Cente	31917	Pass	Pass	28-Oct-14
-	-	-	20141028	1026441	Test Cente	31896	Pass	Pass	28-Oct-14
-	-	-	20141027	1026439	Test Cente	31868	Pass	Pass	27-Oct-14
-	-	-	20141027	1026439	Test Cente	31868	Pass	Pass	27-Oct-14
-	-	-	20141028	1026440	Test Cente	31917	Pass	Pass	28-Oct-14
-	-	-	20141028	1026441	Test Cente	31896	Pass	Pass	28-Oct-14
-	-	-	20141028	1026440	Test Cente	31917	Pass	Pass	28-Oct-14
-	-	-	20141028	1026441	Test Cente	31896	Pass	Pass	28-Oct-14
-	-	-	20141020	1026395	Test Cente	38810	Pass	Pass	20-Oct-14
-	-	-	20141020	1026395	Test Cente	38810	Pass	Pass	20-Oct-14
-	-	-	20141020	1026395	Test Cente	38810	Pass	Pass	20-Oct-14
-	-	-	20141031	1026398	Test Cente	38894	Pass	Pass	31-Oct-14
-	-	-	20141021	1026396	Test Cente	38859	Pass	Pass	21-Oct-14
-	-	-	20141021	1026396	Test Cente	38859	Pass	Pass	21-Oct-14
-	-	-	20141021	1026396	Test Cente	38859	Pass	Pass	21-Oct-14
-	-	-	20141021	1026397	Test Cente	38838	Pass	Pass	21-Oct-14
-	-	-	20141020	1026395	Test Cente	38810	Pass	Pass	20-Oct-14
-	-	-	20141020	1026395	Test Cente	38810	Pass	Pass	20-Oct-14
-	-	-	20141021	1026396	Test Cente	38859	Pass	Pass	21-Oct-14
-	-	-	20141021	1026397	Test Cente	38838	Pass	Pass	21-Oct-14
-	-	-	20141021	1026399	Test Cente	38838	Pass	Pass	21-Oct-14
-	-	-	20141021	1026397	Test Cente	38838	Pass	Pass	21-Oct-14
-	-	-	20141020	1026395	Test Cente	38810	Pass	Pass	20-Oct-14
-	-	-	20141020	1026395	Test Cente	38810	Pass	Pass	20-Oct-14
-	-	-	20141021	1026397	Test Cente	38838	Pass	Pass	21-Oct-14
-	-	-	20141021	1026397	Test Cente	38838	Pass	Pass	21-Oct-14
-	-	-	20141020	1026395	Test Cente	38810	Pass	Pass	20-Oct-14
-	-	-	20141020	1026395	Test Cente	38810	Pass	Pass	20-Oct-14
-	-	-	20141021	1026396	Test Cente	38859	Pass	Pass	21-Oct-14
-	-	-	20141021	1026397	Test Cente	38838	Pass	Pass	21-Oct-14
-	-	-	20141209	1026983	Test Cente	19305	Pass	Pass	12-Sep-14
-	-	-	20141209	1026983	Test Cente	19305	Pass	Pass	12-Sep-14
-	-	-	20141209	1026983	Test Cente	19305	Pass	Pass	12-Sep-14
-	-	-	20141210	1026984	Test Cente	19354	Pass	Pass	12-Oct-14
-	-	-	20141210	1026984	Test Cente	19354	Pass	Pass	12-Oct-14
-	-	-	20141205	1026986	Test Cente	19297	Pass	Pass	5-Dec-14

-	-	-	20141210	1026985	Test Cente	19333	Pass	Pass	10-Dec-14
-	-	-	20141209	1026983	Test Cente	19305	Pass	Pass	12-Sep-14
-	-	-	20141210	1026984	Test Cente	19354	Pass	Pass	12-Oct-14
-	-	-	20141210	1026985	Test Cente	19333	Pass	Pass	10-Dec-14
-	-	-	20141210	1026985	Test Cente	19333	Pass	Pass	10-Dec-14
-	-	-	20141209	1026983	Test Cente	19305	Pass	Pass	12-Sep-14
-	-	-	20141210	1026984	Test Cente	19354	Pass	Pass	12-Oct-14
-	-	-	20141210	1026985	Test Cente	19333	Pass	Pass	10-Dec-14
-	-	-	20141210	1026985	Test Cente	19333	Pass	Pass	10-Dec-14
-	-	-	20141209	1026983	Test Cente	19305	Pass	Pass	12-Sep-14
-	-	-	20141209	1026983	Test Cente	19305	Pass	Pass	12-Sep-14
-	-	-	20141209	1026983	Test Cente	19305	Pass	Pass	12-Sep-14
-	-	-	20141209	1026983	Test Cente	19305	Pass	Pass	12-Sep-14
-	-	-	20141209	1026987	Test Cente	19333	Pass	Pass	9-Dec-14
-	-	-	20141210	1026984	Test Cente	19354	Pass	Pass	12-Oct-14
-	-	-	20141210	1026985	Test Cente	19333	Pass	Pass	10-Dec-14
-	-	-	20141210	1026978	Test Cente	13791	Pass	Pass	12-Oct-14
-	-	-	20141210	1026978	Test Cente	13791	Pass	Pass	12-Oct-14
-	-	-	20141210	1026978	Test Cente	13791	Pass	Pass	12-Oct-14
-	-	-	20141210	1026980	Test Cente	13802	Pass	Pass	10-Dec-14
-	-	-	20141210	1026980	Test Cente	13802	Pass	Pass	10-Dec-14
-	-	-	20141210	1026978	Test Cente	13791	Pass	Pass	12-Oct-14
-	-	-	20141210	1026979	Test Cente	13822	Pass	Pass	12-Oct-14
-	-	-	20141210	1026978	Test Cente	13791	Pass	Pass	12-Oct-14
-	-	-	20141210	1026978	Test Cente	13791	Pass	Pass	12-Oct-14
-	-	-	20141210	1026979	Test Cente	13822	Pass	Pass	12-Oct-14
-	-	-	20141210	1026978	Test Cente	13791	Pass	Pass	12-Oct-14
-	-	-	20141210	1026979	Test Cente	13822	Pass	Pass	12-Oct-14
-	-	-	20141210	1026979	Test Cente	13822	Pass	Pass	12-Oct-14
-	-	-	20141210	1026980	Test Cente	13802	Pass	Pass	10-Dec-14
-	-	-	20141210	1026978	Test Cente	13791	Pass	Pass	12-Oct-14
-	-	-	20141210	1026980	Test Cente	13802	Pass	Pass	10-Dec-14
-	-	-	20141210	1026978	Test Cente	13791	Pass	Pass	12-Oct-14
-	-	-	20141210	1026979	Test Cente	13822	Pass	Pass	12-Oct-14
-	-	-	20141210	1026980	Test Cente	13802	Pass	Pass	10-Dec-14
-	-	-	20141210	1026980	Test Cente	13802	Pass	Pass	10-Dec-14
-	-	-	20130419	1027659	Test Cente	10594	Pass	Pass	19-Apr-14
-	-	-	20130419	1027659	Test Cente	10594	Pass	Pass	19-Apr-14
-	-	-	20130422	1027661	Test Cente	10605	Pass	Pass	22-Apr-14
-	-	-	20130422	1027661	Test Cente	10605	Pass	Pass	22-Apr-14
-	-	-	20130422	1027660	Test Cente	10626	Pass	Pass	22-Apr-14
-	-	-	20130422	1027661	Test Cente	10605	Pass	Pass	22-Apr-14
-	-	-	20130422	1027661	Test Cente	10605	Pass	Pass	22-Apr-14
-	-	-	20130419	1027659	Test Cente	10594	Pass	Pass	19-Apr-14
-	-	-	20130419	1027659	Test Cente	10594	Pass	Pass	19-Apr-14

-	-	-	20130419	1027659	Test Cente	10594	Pass	Pass	19-Apr-14
-	-	-	20130419	1027659	Test Cente	10594	Pass	Pass	19-Apr-14
-	-	-	20130419	1027659	Test Cente	10594	Pass	Pass	19-Apr-14
-	-	-	20130422	1027660	Test Cente	10626	Pass	Pass	22-Apr-14
-	-	-	20130422	1027661	Test Cente	10605	Pass	Pass	22-Apr-14
-	-	-	20130419	1027659	Test Cente	10594	Pass	Pass	19-Apr-14
-	-	-	20130422	1027660	Test Cente	10626	Pass	Pass	22-Apr-14
-	-	-	20130422	1027660	Test Cente	10626	Pass	Pass	22-Apr-14
-	-	-	20130422	1027661	Test Cente	10605	Pass	Pass	22-Apr-14
-	-	-	20130419	1027659	Test Cente	10594	Pass	Pass	19-Apr-14
-	-	-	20130422	1027660	Test Cente	10626	Pass	Pass	22-Apr-14
-	-	-	20140703	1025131	Test Cente	16388	Pass	Pass	3-Jul-14
-	-	-	20140703	1025131	Test Cente	16388	Pass	Pass	3-Jul-14
-	-	-	20140703	1025131	Test Cente	16388	Pass	Pass	3-Jul-14
-	-	-	20140703	1025132	Test Cente	16421	Pass	Pass	3-Jul-14
-	-	-	20140703	1025133	Test Cente	16400	Pass	Pass	3-Jul-14
-	-	-	20140703	1025133	Test Cente	16400	Pass	Pass	3-Jul-14
-	-	-	20140703	1025131	Test Cente	16388	Pass	Pass	3-Jul-14
-	-	-	20140703	1025131	Test Cente	16388	Pass	Pass	3-Jul-14
-	-	-	20140703	1025131	Test Cente	16388	Pass	Pass	3-Jul-14
-	-	-	20140703	1025131	Test Cente	16388	Pass	Pass	3-Jul-14
-	-	-	20140703	1025131	Test Cente	16388	Pass	Pass	3-Jul-14
-	-	-	20140703	1025132	Test Cente	16421	Pass	Pass	3-Jul-14
-	-	-	20140703	1025132	Test Cente	16421	Pass	Pass	3-Jul-14
-	-	-	20140703	1025132	Test Cente	16421	Pass	Pass	3-Jul-14
-	-	-	20140703	1025133	Test Cente	16400	Pass	Pass	3-Jul-14
-	-	-	20140703	1025131	Test Cente	16388	Pass	Pass	3-Jul-14
-	-	-	20140703	1025132	Test Cente	16421	Pass	Pass	3-Jul-14
-	-	-	20140703	1025133	Test Cente	16400	Pass	Pass	3-Jul-14
-	-	-	20140703	1025133	Test Cente	16400	Pass	Pass	3-Jul-14
-	-	-	20140703	1025133	Test Cente	16400	Pass	Pass	3-Jul-14
-	-	-	20141119	1026887	Test Cente	41858	Pass	Pass	19-Nov-14
-	-	-	20141119	1026887	Test Cente	41858	Pass	Pass	19-Nov-14
-	-	-	20141119	1026887	Test Cente	41858	Pass	Pass	19-Nov-14
-	-	-	20141119	1026888	Test Cente	41912	Pass	Pass	19-Nov-14
-	-	-	20141119	1026888	Test Cente	41912	Pass	Pass	19-Nov-14
-	-	-	20141119	1026889	Test Cente	41892	Pass	Pass	19-Nov-14
-	-	-	20141119	1026889	Test Cente	41892	Pass	Pass	19-Nov-14
-	-	-	20141119	1026889	Test Cente	41892	Pass	Pass	19-Nov-14
-	-	-	20141119	1026889	Test Cente	41892	Pass	Pass	19-Nov-14
-	-	-	20141119	1026887	Test Cente	41858	Pass	Pass	19-Nov-14
-	-	-	20141119	1026887	Test Cente	41858	Pass	Pass	19-Nov-14
-	-	-	20141119	1026888	Test Cente	41912	Pass	Pass	19-Nov-14
-	-	-	20141119	1026888	Test Cente	41912	Pass	Pass	19-Nov-14
-	-	-	20141119	1026889	Test Cente	41892	Pass	Pass	19-Nov-14

-	-	-	20141119T	1026887	Test Cente	41858	Pass	Pass	19-Nov-14
-	-	-	20141119T	1026888	Test Cente	41912	Pass	Pass	19-Nov-14
-	-	-	20141119T	1026887	Test Cente	41858	Pass	Pass	19-Nov-14
-	-	-	20141119T	1026887	Test Cente	41858	Pass	Pass	19-Nov-14
-	-	-	20141119T	1026887	Test Cente	41858	Pass	Pass	19-Nov-14
-	-	-	20141119T	1026887	Test Cente	41858	Pass	Pass	19-Nov-14
-	-	-	20141119T	1026888	Test Cente	41912	Pass	Pass	19-Nov-14
-	-	-	20141119T	1026889	Test Cente	41892	Pass	Pass	19-Nov-14
-	-	-	20141212T	1026945	Test Cente	30988	Pass	Pass	12-Dec-14
-	-	-	20141215T	1026946	Test Cente	31044	Pass	Pass	15-Dec-14
-	-	-	20141215T	1026946	Test Cente	31044	Pass	Pass	15-Dec-14
-	-	-	20141215T	1026946	Test Cente	31044	Pass	Pass	15-Dec-14
-	-	-	20141212T	1026947	Test Cente	30999	Pass	Pass	12-Dec-14
-	-	-	20141212T	1026945	Test Cente	30988	Pass	Pass	12-Dec-14
-	-	-	20141212T	1026945	Test Cente	30988	Pass	Pass	12-Dec-14
-	-	-	20141212T	1026945	Test Cente	30988	Pass	Pass	12-Dec-14
-	-	-	20141212T	1026945	Test Cente	30988	Pass	Pass	12-Dec-14
-	-	-	20141215T	1026946	Test Cente	31044	Pass	Pass	15-Dec-14
-	-	-	20141212T	1026947	Test Cente	30999	Pass	Pass	12-Dec-14
-	-	-	20141212T	1026945	Test Cente	30988	Pass	Pass	12-Dec-14
-	-	-	20141212T	1026947	Test Cente	30999	Pass	Pass	12-Dec-14
-	-	-	20141212T	1026947	Test Cente	30999	Pass	Pass	12-Dec-14
-	-	-	20141212T	1026945	Test Cente	30988	Pass	Pass	12-Dec-14
-	-	-	20141215T	1026946	Test Cente	31044	Pass	Pass	15-Dec-14
-	-	-	20141212T	1026945	Test Cente	30988	Pass	Pass	12-Dec-14
-	-	-	20141212T	1026945	Test Cente	30988	Pass	Pass	12-Dec-14
-	-	-	20141212T	1026947	Test Cente	30999	Pass	Pass	12-Dec-14
-	-	-	20141212T	1026945	Test Cente	30988	Pass	Pass	12-Dec-14
-	-	-	20141215T	1026946	Test Cente	31044	Pass	Pass	15-Dec-14
-	-	-	20141212T	1026947	Test Cente	30999	Pass	Pass	12-Dec-14
-	-	-	L50298005	1029908	Volkswage	46845	Pass	Not Applic	27-Aug-15
-	-	-	L50298005	1029908	Volkswage	46845	Pass	Not Applic	27-Aug-15
-	-	-	L50298005	1029908	Volkswage	46845	Pass	Not Applic	27-Aug-15
-	-	-	L50298006	1029906	Volkswage	46856	Pass	Not Applic	27-Aug-15
-	-	-	L50298006	1029906	Volkswage	46856	Pass	Not Applic	27-Aug-15
-	-	-	L50298005	1029908	Volkswage	46845	Pass	Not Applic	27-Aug-15
-	-	-	L50298005	1029908	Volkswage	46845	Pass	Not Applic	27-Aug-15
-	-	-	L50298006	1029906	Volkswage	46856	Pass	Not Applic	27-Aug-15
-	-	-	L50298006	1029906	Volkswage	46856	Pass	Not Applic	27-Aug-15
-	-	-	L50298007	1029907	Volkswage	46876	Pass	Not Applic	27-Aug-15
-	-	-	L50298005	1029908	Volkswage	46845	Pass	Not Applic	27-Aug-15
-	-	-	L50298006	1029906	Volkswage	46856	Pass	Not Applic	27-Aug-15
-	-	-	L50298006	1029906	Volkswage	46856	Pass	Not Applic	27-Aug-15
-	-	-	L50298006	1029906	Volkswage	46856	Pass	Not Applic	27-Aug-15
-	-	-	L50298007	1029907	Volkswage	46876	Pass	Not Applic	27-Aug-15

-	-	-	L50298007	1029907	Volkswage	46876	Pass	Not Applic 27-Aug-15
-	-	-	L50298006	1029906	Volkswage	46856	Pass	Not Applic 27-Aug-15
-	-	-	L50298006	1029906	Volkswage	46856	Pass	Not Applic 27-Aug-15
-	-	-	L50298007	1029907	Volkswage	46876	Pass	Not Applic 27-Aug-15
-	-	-	L50298007	1029907	Volkswage	46876	Pass	Not Applic 27-Aug-15
-	-	-	L50298005	1029908	Volkswage	46845	Pass	Not Applic 27-Aug-15
-	-	-	L50298005	1029908	Volkswage	46845	Pass	Not Applic 27-Aug-15
-	-	-	L50298006	1029906	Volkswage	46856	Pass	Not Applic 27-Aug-15
-	-	-	L50298007	1029907	Volkswage	46876	Pass	Not Applic 27-Aug-15
-	-	-	L50298007	1029907	Volkswage	46876	Pass	Not Applic 27-Aug-15
-	-	-	L50298007	1029907	Volkswage	46876	Pass	Not Applic 27-Aug-15
-	-	-	L50298005	1029908	Volkswage	46845	Pass	Not Applic 27-Aug-15
-	-	-	L50298005	1029908	Volkswage	46845	Pass	Not Applic 27-Aug-15
-	-	-	L50298006	1029906	Volkswage	46856	Pass	Not Applic 27-Aug-15
-	-	-	L50298005	1029908	Volkswage	46845	Pass	Not Applic 27-Aug-15
-	-	-	L50298007	1029907	Volkswage	46876	Pass	Not Applic 27-Aug-15
-	-	-	L50298007	1029907	Volkswage	46876	Pass	Not Applic 27-Aug-15
-	-	-	L50298005	1029908	Volkswage	46845	Pass	Not Applic 27-Aug-15
-	-	-	L50298006	1029906	Volkswage	46856	Pass	Not Applic 27-Aug-15
-	-	-	L50298007	1029907	Volkswage	46876	Pass	Not Applic 27-Aug-15
-	-	-	L50298007	1029907	Volkswage	46876	Pass	Not Applic 27-Aug-15
-	-	-	L50301002	1029683	Volkswage	60040	Pass	Not Applic 31-Jul-15
-	-	-	L50301002	1029683	Volkswage	60040	Pass	Not Applic 31-Jul-15
-	-	-	L50301001	1029684	Volkswage	60071	Pass	Not Applic 31-Jul-15
-	-	-	L50301001	1029684	Volkswage	60071	Pass	Not Applic 31-Jul-15
-	-	-	L50301004	1029682	Volkswage	60051	Pass	Not Applic 31-Jul-15
-	-	-	L50301002	1029683	Volkswage	60040	Pass	Not Applic 31-Jul-15
-	-	-	L50301001	1029684	Volkswage	60071	Pass	Not Applic 31-Jul-15
-	-	-	L50301004	1029682	Volkswage	60051	Pass	Not Applic 31-Jul-15
-	-	-	L50301004	1029682	Volkswage	60051	Pass	Not Applic 31-Jul-15
-	-	-	L50301002	1029683	Volkswage	60040	Pass	Not Applic 31-Jul-15
-	-	-	L50301001	1029684	Volkswage	60071	Pass	Not Applic 31-Jul-15
-	-	-	L50301001	1029684	Volkswage	60071	Pass	Not Applic 31-Jul-15
-	-	-	L50301001	1029684	Volkswage	60071	Pass	Not Applic 31-Jul-15
-	-	-	L50301004	1029682	Volkswage	60051	Pass	Not Applic 31-Jul-15
-	-	-	L50301004	1029682	Volkswage	60051	Pass	Not Applic 31-Jul-15
-	-	-	L50301004	1029682	Volkswage	60051	Pass	Not Applic 31-Jul-15
-	-	-	L50301001	1029684	Volkswage	60071	Pass	Not Applic 31-Jul-15
-	-	-	L50301002	1029683	Volkswage	60040	Pass	Not Applic 31-Jul-15
-	-	-	L50301002	1029683	Volkswage	60040	Pass	Not Applic 31-Jul-15
-	-	-	L50301002	1029683	Volkswage	60040	Pass	Not Applic 31-Jul-15
-	-	-	L50301001	1029684	Volkswage	60071	Pass	Not Applic 31-Jul-15
-	-	-	L50301001	1029684	Volkswage	60071	Pass	Not Applic 31-Jul-15
-	-	-	L50301004	1029682	Volkswage	60051	Pass	Not Applic 31-Jul-15
-	-	-	L50301002	1029683	Volkswage	60040	Pass	Not Applic 31-Jul-15

-	-	-	L50301001	1029684	Volkswage	60071	Pass	Not Applic	31-Jul-15
-	-	-	L50301004	1029682	Volkswage	60051	Pass	Not Applic	31-Jul-15
-	-	-	L50301004	1029682	Volkswage	60051	Pass	Not Applic	31-Jul-15
-	-	-	L50301004	1029682	Volkswage	60051	Pass	Not Applic	31-Jul-15
-	-	-	L50301004	1029682	Volkswage	60051	Pass	Not Applic	31-Jul-15
-	-	-	L50301002	1029683	Volkswage	60040	Pass	Not Applic	31-Jul-15
-	-	-	L50301002	1029683	Volkswage	60040	Pass	Not Applic	31-Jul-15
-	-	-	L50301002	1029683	Volkswage	60040	Pass	Not Applic	31-Jul-15
-	-	-	L50301001	1029684	Volkswage	60071	Pass	Not Applic	31-Jul-15
-	-	-	L50301002	1029683	Volkswage	60040	Pass	Not Applic	31-Jul-15
-	-	-	L50301001	1029684	Volkswage	60071	Pass	Not Applic	31-Jul-15
-	-	-	L50301004	1029682	Volkswage	60051	Pass	Not Applic	31-Jul-15
-	-	-	L50233002	1029034	Volkswage	44857	Pass	Not Applic	12-Jun-15
-	-	-	L50233001	1029036	Volkswage	44889	Pass	Not Applic	12-Jun-15
-	-	-	L50233001	1029036	Volkswage	44889	Pass	Not Applic	12-Jun-15
-	-	-	L50233001	1029036	Volkswage	44889	Pass	Not Applic	12-Jun-15
-	-	-	L50233004	1029035	Volkswage	44868	Pass	Not Applic	12-Jun-15
-	-	-	L50233002	1029034	Volkswage	44857	Pass	Not Applic	12-Jun-15
-	-	-	L50233002	1029034	Volkswage	44857	Pass	Not Applic	12-Jun-15
-	-	-	L50233001	1029036	Volkswage	44889	Pass	Not Applic	12-Jun-15
-	-	-	L50233004	1029035	Volkswage	44868	Pass	Not Applic	12-Jun-15
-	-	-	L50233002	1029034	Volkswage	44857	Pass	Not Applic	12-Jun-15
-	-	-	L50233001	1029036	Volkswage	44889	Pass	Not Applic	12-Jun-15
-	-	-	L50233004	1029035	Volkswage	44868	Pass	Not Applic	12-Jun-15
-	-	-	L50233004	1029035	Volkswage	44868	Pass	Not Applic	12-Jun-15
-	-	-	L50233004	1029035	Volkswage	44868	Pass	Not Applic	12-Jun-15
-	-	-	L50233004	1029035	Volkswage	44868	Pass	Not Applic	12-Jun-15
-	-	-	L50233004	1029035	Volkswage	44868	Pass	Not Applic	12-Jun-15
-	-	-	L50233004	1029035	Volkswage	44868	Pass	Not Applic	12-Jun-15
-	-	-	L50233002	1029034	Volkswage	44857	Pass	Not Applic	12-Jun-15
-	-	-	L50233002	1029034	Volkswage	44857	Pass	Not Applic	12-Jun-15
-	-	-	L50233002	1029034	Volkswage	44857	Pass	Not Applic	12-Jun-15
-	-	-	L50233002	1029034	Volkswage	44857	Pass	Not Applic	12-Jun-15
-	-	-	L50233002	1029034	Volkswage	44857	Pass	Not Applic	12-Jun-15
-	-	-	L50233001	1029036	Volkswage	44889	Pass	Not Applic	12-Jun-15
-	-	-	L50233001	1029036	Volkswage	44889	Pass	Not Applic	12-Jun-15
-	-	-	L50233001	1029036	Volkswage	44889	Pass	Not Applic	12-Jun-15
-	-	-	L50233004	1029035	Volkswage	44868	Pass	Not Applic	12-Jun-15
-	-	-	L50233002	1029034	Volkswage	44857	Pass	Not Applic	12-Jun-15
-	-	-	L50233001	1029036	Volkswage	44889	Pass	Not Applic	12-Jun-15
-	-	-	L50233001	1029036	Volkswage	44889	Pass	Not Applic	12-Jun-15
-	-	-	L50233002	1029034	Volkswage	44857	Pass	Not Applic	12-Jun-15
-	-	-	L50233002	1029034	Volkswage	44857	Pass	Not Applic	12-Jun-15
-	-	-	L50233001	1029036	Volkswage	44889	Pass	Not Applic	12-Jun-15
-	-	-	L50233001	1029036	Volkswage	44889	Pass	Not Applic	12-Jun-15

-	-	-	L50233004	1029035	Volkswage	44868	Pass	Not Applic	12-Jun-15
-	-	-	L50233004	1029035	Volkswage	44868	Pass	Not Applic	12-Jun-15
-	-	-	L50233004	1029035	Volkswage	44868	Pass	Not Applic	12-Jun-15
-	-	-	L50233004	1029035	Volkswage	44868	Pass	Not Applic	12-Jun-15
-	-	-	L50236002	1028992	Volkswage	34227	Fail	Not Applic	5-Jun-15
-	-	-	L50236005	1028991	Volkswage	34275	Pass	Not Applic	9-Jun-15
-	-	-	L50236002	1028992	Volkswage	34227	Fail	Not Applic	5-Jun-15
-	-	-	L50236001	1028993	Volkswage	34259	Pass	Not Applic	5-Jun-15
-	-	-	L50236005	1028991	Volkswage	34275	Pass	Not Applic	9-Jun-15
-	-	-	L50236005	1028991	Volkswage	34275	Pass	Not Applic	9-Jun-15
-	-	-	L50236005	1028991	Volkswage	34275	Pass	Not Applic	9-Jun-15
-	-	-	L50236002	1028992	Volkswage	34227	Fail	Not Applic	5-Jun-15
-	-	-	L50236002	1028992	Volkswage	34227	Fail	Not Applic	5-Jun-15
-	-	-	L50236001	1028993	Volkswage	34259	Pass	Not Applic	5-Jun-15
-	-	-	L50236001	1028993	Volkswage	34259	Pass	Not Applic	5-Jun-15
-	-	-	L50236001	1028993	Volkswage	34259	Pass	Not Applic	5-Jun-15
-	-	-	L50236001	1028993	Volkswage	34259	Pass	Not Applic	5-Jun-15
-	-	-	L50236005	1028991	Volkswage	34275	Pass	Not Applic	9-Jun-15
-	-	-	L50236005	1028991	Volkswage	34275	Pass	Not Applic	9-Jun-15
-	-	-	L50236005	1028991	Volkswage	34275	Pass	Not Applic	9-Jun-15
-	-	-	L50236002	1028992	Volkswage	34227	Fail	Not Applic	5-Jun-15
-	-	-	L50236001	1028993	Volkswage	34259	Pass	Not Applic	5-Jun-15
-	-	-	L50236001	1028993	Volkswage	34259	Pass	Not Applic	5-Jun-15
-	-	-	L50236005	1028991	Volkswage	34275	Pass	Not Applic	9-Jun-15
-	-	-	L50236002	1028992	Volkswage	34227	Fail	Not Applic	5-Jun-15
-	-	-	L50236002	1028992	Volkswage	34227	Fail	Not Applic	5-Jun-15
-	-	-	L50236002	1028992	Volkswage	34227	Fail	Not Applic	5-Jun-15
-	-	-	L50236001	1028993	Volkswage	34259	Pass	Not Applic	5-Jun-15
-	-	-	L50236001	1028993	Volkswage	34259	Pass	Not Applic	5-Jun-15
-	-	-	L50236002	1028992	Volkswage	34227	Fail	Not Applic	5-Jun-15
-	-	-	L50236002	1028992	Volkswage	34227	Fail	Not Applic	5-Jun-15
-	-	-	L50236002	1028992	Volkswage	34227	Fail	Not Applic	5-Jun-15
-	-	-	L50236002	1028992	Volkswage	34227	Fail	Not Applic	5-Jun-15
-	-	-	L50236001	1028993	Volkswage	34259	Pass	Not Applic	5-Jun-15
-	-	-	L50236001	1028993	Volkswage	34259	Pass	Not Applic	5-Jun-15
-	-	-	L50236005	1028991	Volkswage	34275	Pass	Not Applic	9-Jun-15
-	-	-	L50236005	1028991	Volkswage	34275	Pass	Not Applic	9-Jun-15
-	-	-	L50236001	1028993	Volkswage	34259	Pass	Not Applic	5-Jun-15
-	-	-	L50236005	1028991	Volkswage	34275	Pass	Not Applic	9-Jun-15
-	-	-	L50236005	1028991	Volkswage	34275	Pass	Not Applic	9-Jun-15
-	-	-	L50236005	1028991	Volkswage	34275	Pass	Not Applic	9-Jun-15
-	-	-	20140829T	1025433	Test Cente	13893	Pass	Pass	29-Aug-14
-	-	-	20140829T	1025431	Test Cente	13881	Pass	Pass	29-Aug-14
-	-	-	20140829T	1025431	Test Cente	13881	Pass	Pass	29-Aug-14
-	-	-	20140829T	1025431	Test Cente	13881	Pass	Pass	29-Aug-14

-	-	-	20140829	1025432	Test Cente	13913	Pass	Pass 29-Aug-14
-	-	-	20140829	1025432	Test Cente	13913	Pass	Pass 29-Aug-14
-	-	-	20140829	1025433	Test Cente	13893	Pass	Pass 29-Aug-14
-	-	-	20140829	1025433	Test Cente	13893	Pass	Pass 29-Aug-14
-	-	-	20140829	1025431	Test Cente	13881	Pass	Pass 29-Aug-14
-	-	-	20140829	1025431	Test Cente	13881	Pass	Pass 29-Aug-14
-	-	-	20140829	1025433	Test Cente	13893	Pass	Pass 29-Aug-14
-	-	-	20140829	1025431	Test Cente	13881	Pass	Pass 29-Aug-14
-	-	-	20140829	1025431	Test Cente	13881	Pass	Pass 29-Aug-14
-	-	-	20140829	1025431	Test Cente	13881	Pass	Pass 29-Aug-14
-	-	-	20140829	1025433	Test Cente	13893	Pass	Pass 29-Aug-14
-	-	-	20140829	1025431	Test Cente	13881	Pass	Pass 29-Aug-14
-	-	-	20140829	1025432	Test Cente	13913	Pass	Pass 29-Aug-14
-	-	-	20140829	1025432	Test Cente	13913	Pass	Pass 29-Aug-14
-	-	-	20140829	1025432	Test Cente	13913	Pass	Pass 29-Aug-14
-	-	-	20140829	1025433	Test Cente	13893	Pass	Pass 29-Aug-14
-	-	-	L50291002	1029884	Volkswage	65780	Pass	Not Applic 22-Jul-15
-	-	-	L50291002	1029884	Volkswage	65780	Pass	Not Applic 22-Jul-15
-	-	-	L50291004	1029883	Volkswage	65791	Pass	Not Applic 22-Jul-15
-	-	-	L50291004	1029883	Volkswage	65791	Pass	Not Applic 22-Jul-15
-	-	-	L50291004	1029883	Volkswage	65791	Pass	Not Applic 22-Jul-15
-	-	-	L50291001	1029882	Volkswage	65811	Pass	Not Applic 22-Jul-15
-	-	-	L50291001	1029882	Volkswage	65811	Pass	Not Applic 22-Jul-15
-	-	-	L50291002	1029884	Volkswage	65780	Pass	Not Applic 22-Jul-15
-	-	-	L50291004	1029883	Volkswage	65791	Pass	Not Applic 22-Jul-15
-	-	-	L50291001	1029882	Volkswage	65811	Pass	Not Applic 22-Jul-15
-	-	-	L50291002	1029884	Volkswage	65780	Pass	Not Applic 22-Jul-15
-	-	-	L50291001	1029882	Volkswage	65811	Pass	Not Applic 22-Jul-15
-	-	-	L50291002	1029884	Volkswage	65780	Pass	Not Applic 22-Jul-15
-	-	-	L50291002	1029884	Volkswage	65780	Pass	Not Applic 22-Jul-15
-	-	-	L50291002	1029884	Volkswage	65780	Pass	Not Applic 22-Jul-15
-	-	-	L50291002	1029884	Volkswage	65780	Pass	Not Applic 22-Jul-15
-	-	-	L50291004	1029883	Volkswage	65791	Pass	Not Applic 22-Jul-15
-	-	-	L50291004	1029883	Volkswage	65791	Pass	Not Applic 22-Jul-15
-	-	-	L50291004	1029883	Volkswage	65791	Pass	Not Applic 22-Jul-15
-	-	-	L50291001	1029882	Volkswage	65811	Pass	Not Applic 22-Jul-15
-	-	-	L50291002	1029884	Volkswage	65780	Pass	Not Applic 22-Jul-15
-	-	-	L50291002	1029884	Volkswage	65780	Pass	Not Applic 22-Jul-15
-	-	-	L50291004	1029883	Volkswage	65791	Pass	Not Applic 22-Jul-15
-	-	-	L50291001	1029882	Volkswage	65811	Pass	Not Applic 22-Jul-15
-	-	-	L50291001	1029882	Volkswage	65811	Pass	Not Applic 22-Jul-15
-	-	-	L50291002	1029884	Volkswage	65780	Pass	Not Applic 22-Jul-15
-	-	-	L50291002	1029884	Volkswage	65780	Pass	Not Applic 22-Jul-15
-	-	-	L50291004	1029883	Volkswage	65791	Pass	Not Applic 22-Jul-15
-	-	-	L50291004	1029883	Volkswage	65791	Pass	Not Applic 22-Jul-15

-	-	-	L50291004	1029883	Volkswage	65791	Pass	Not Applic.	22-Jul-15
-	-	-	L50291001	1029882	Volkswage	65811	Pass	Not Applic.	22-Jul-15
-	-	-	L50291001	1029882	Volkswage	65811	Pass	Not Applic.	22-Jul-15
-	-	-	L50291004	1029883	Volkswage	65791	Pass	Not Applic.	22-Jul-15
-	-	-	L50291001	1029882	Volkswage	65811	Pass	Not Applic.	22-Jul-15
-	-	-	L50291001	1029882	Volkswage	65811	Pass	Not Applic.	22-Jul-15
-	-	-	L50291001	1029882	Volkswage	65811	Pass	Not Applic.	22-Jul-15
-	-	-	20140520T	1023605	Test Cente	24981	Pass	Pass	20-May-14
-	-	-	20140520T	1023605	Test Cente	24981	Pass	Pass	20-May-14
-	-	-	20140520T	1023605	Test Cente	24981	Pass	Pass	20-May-14
-	-	-	20140520T	1023606	Test Cente	25013	Pass	Pass	20-May-14
-	-	-	20140520T	1023607	Test Cente	24992	Pass	Pass	20-May-14
-	-	-	20140520T	1023605	Test Cente	24981	Pass	Pass	20-May-14
-	-	-	20140520T	1023606	Test Cente	25013	Pass	Pass	20-May-14
-	-	-	20140520T	1023607	Test Cente	24992	Pass	Pass	20-May-14
-	-	-	20140520T	1023607	Test Cente	24992	Pass	Pass	20-May-14
-	-	-	20140520T	1023605	Test Cente	24981	Pass	Pass	20-May-14
-	-	-	20140520T	1023607	Test Cente	24992	Pass	Pass	20-May-14
-	-	-	20140520T	1023605	Test Cente	24981	Pass	Pass	20-May-14
-	-	-	20140520T	1023605	Test Cente	24981	Pass	Pass	20-May-14
-	-	-	20140520T	1023606	Test Cente	25013	Pass	Pass	20-May-14
-	-	-	20140520T	1023605	Test Cente	24981	Pass	Pass	20-May-14
-	-	-	20140520T	1023605	Test Cente	24981	Pass	Pass	20-May-14
-	-	-	20140520T	1023605	Test Cente	24981	Pass	Pass	20-May-14
-	-	-	20140520T	1023606	Test Cente	25013	Pass	Pass	20-May-14
-	-	-	20140520T	1023606	Test Cente	25013	Pass	Pass	20-May-14
-	-	-	20140520T	1023606	Test Cente	25013	Pass	Pass	20-May-14
-	-	-	20140520T	1023607	Test Cente	24992	Pass	Pass	20-May-14
-	-	-	20140520T	1023607	Test Cente	24992	Pass	Pass	20-May-14
-	-	-	20140826T	1025452	Test Cente	11494	Pass	Pass	26-Aug-14
-	-	-	20140826T	1025452	Test Cente	11494	Pass	Pass	26-Aug-14
-	-	-	20140826T	1025452	Test Cente	11494	Pass	Pass	26-Aug-14
-	-	-	20140826T	1025452	Test Cente	11494	Pass	Pass	26-Aug-14
-	-	-	20140822T	1025453	Test Cente	11470	Pass	Pass	22-Aug-14
-	-	-	20140822T	1025453	Test Cente	11470	Pass	Pass	22-Aug-14
-	-	-	20140822T	1025454	Test Cente	11449	Pass	Pass	22-Aug-14
-	-	-	20140822T	1025454	Test Cente	11449	Pass	Pass	22-Aug-14
-	-	-	20140826T	1025452	Test Cente	11494	Pass	Pass	26-Aug-14
-	-	-	20140822T	1025453	Test Cente	11470	Pass	Pass	22-Aug-14
-	-	-	20140826T	1025452	Test Cente	11494	Pass	Pass	26-Aug-14
-	-	-	20140826T	1025452	Test Cente	11494	Pass	Pass	26-Aug-14
-	-	-	20140822T	1025454	Test Cente	11449	Pass	Pass	22-Aug-14
-	-	-	20140826T	1025452	Test Cente	11494	Pass	Pass	26-Aug-14
-	-	-	20140822T	1025453	Test Cente	11470	Pass	Pass	22-Aug-14
-	-	-	20140822T	1025454	Test Cente	11449	Pass	Pass	22-Aug-14

-	-	-	20140826T	1025452	Test Cente	11494	Pass	Pass	26-Aug-14
-	-	-	20140822T	1025453	Test Cente	11470	Pass	Pass	22-Aug-14
-	-	-	20140822T	1025454	Test Cente	11449	Pass	Pass	22-Aug-14
-	-	-	20140822T	1025454	Test Cente	11449	Pass	Pass	22-Aug-14
-	-	-	L50202001	1028565	Volkswage	28279	Not Applic	Not Applic	8-May-15
-	-	-	L50202006	1028566	Volkswage	28259	Not Applic	Not Applic	8-May-15
-	-	-	L50202006	1028566	Volkswage	28259	Not Applic	Not Applic	8-May-15
-	-	-	L50202003	1028568	Volkswage	28248	Not Applic	Not Applic	5-May-15
-	-	-	L50202003	1028568	Volkswage	28248	Not Applic	Not Applic	5-May-15
-	-	-	L50202001	1028565	Volkswage	28279	Not Applic	Not Applic	8-May-15
-	-	-	L50202006	1028566	Volkswage	28259	Not Applic	Not Applic	8-May-15
-	-	-	L50202006	1028566	Volkswage	28259	Not Applic	Not Applic	8-May-15
-	-	-	L50202001	1028565	Volkswage	28279	Not Applic	Not Applic	8-May-15
-	-	-	L50202001	1028565	Volkswage	28279	Not Applic	Not Applic	8-May-15
-	-	-	L50202001	1028565	Volkswage	28279	Not Applic	Not Applic	8-May-15
-	-	-	L50202001	1028565	Volkswage	28279	Not Applic	Not Applic	8-May-15
-	-	-	L50202006	1028566	Volkswage	28259	Not Applic	Not Applic	8-May-15
-	-	-	L50202003	1028568	Volkswage	28248	Not Applic	Not Applic	5-May-15
-	-	-	L50202003	1028568	Volkswage	28248	Not Applic	Not Applic	5-May-15
-	-	-	L50202001	1028565	Volkswage	28279	Not Applic	Not Applic	8-May-15
-	-	-	L50202006	1028566	Volkswage	28259	Not Applic	Not Applic	8-May-15
-	-	-	L50202006	1028566	Volkswage	28259	Not Applic	Not Applic	8-May-15
-	-	-	L50202006	1028566	Volkswage	28259	Not Applic	Not Applic	8-May-15
-	-	-	L50202006	1028566	Volkswage	28259	Not Applic	Not Applic	8-May-15
-	-	-	L50202003	1028568	Volkswage	28248	Not Applic	Not Applic	5-May-15
-	-	-	L50202003	1028568	Volkswage	28248	Not Applic	Not Applic	5-May-15
-	-	-	L50202003	1028568	Volkswage	28248	Not Applic	Not Applic	5-May-15
-	-	-	L50202001	1028565	Volkswage	28279	Not Applic	Not Applic	8-May-15
-	-	-	L50202006	1028566	Volkswage	28259	Not Applic	Not Applic	8-May-15
-	-	-	L50202003	1028568	Volkswage	28248	Not Applic	Not Applic	5-May-15
-	-	-	L50202001	1028565	Volkswage	28279	Not Applic	Not Applic	8-May-15
-	-	-	L50202001	1028565	Volkswage	28279	Not Applic	Not Applic	8-May-15
-	-	-	L50202006	1028566	Volkswage	28259	Not Applic	Not Applic	8-May-15
-	-	-	L50202005	1028567	Volkswage	28259.1	Not Applic	Not Applic	5-May-15
-	-	-	L50202003	1028568	Volkswage	28248	Not Applic	Not Applic	5-May-15
-	-	-	L50202003	1028568	Volkswage	28248	Not Applic	Not Applic	5-May-15
-	-	-	L50202003	1028568	Volkswage	28248	Not Applic	Not Applic	5-May-15
-	-	-	L50202001	1028565	Volkswage	28279	Not Applic	Not Applic	8-May-15
-	-	-	L50202006	1028566	Volkswage	28259	Not Applic	Not Applic	8-May-15
-	-	-	L50207003	1028615	Volkswage	37601	Pass	Not Applic	12-May-15
-	-	-	L50207005	1028614	Volkswage	37612	Pass	Not Applic	12-May-15
-	-	-	L50207003	1028615	Volkswage	37601	Pass	Not Applic	12-May-15
-	-	-	L50207001	1028616	Volkswage	37632	Pass	Not Applic	12-May-15
-	-	-	L50207001	1028616	Volkswage	37632	Pass	Not Applic	12-May-15
-	-	-	L50207003	1028615	Volkswage	37601	Pass	Not Applic	12-May-15

-	-	-	L50207005	1028614	Volkswage	37612	Pass	Not Applic	12-May-15
-	-	-	L50207005	1028614	Volkswage	37612	Pass	Not Applic	12-May-15
-	-	-	L50207001	1028616	Volkswage	37632	Pass	Not Applic	12-May-15
-	-	-	L50207001	1028616	Volkswage	37632	Pass	Not Applic	12-May-15
-	-	-	L50207001	1028616	Volkswage	37632	Pass	Not Applic	12-May-15
-	-	-	L50207001	1028616	Volkswage	37632	Pass	Not Applic	12-May-15
-	-	-	L50207003	1028615	Volkswage	37601	Pass	Not Applic	12-May-15
-	-	-	L50207003	1028615	Volkswage	37601	Pass	Not Applic	12-May-15
-	-	-	L50207005	1028614	Volkswage	37612	Pass	Not Applic	12-May-15
-	-	-	L50207001	1028616	Volkswage	37632	Pass	Not Applic	12-May-15
-	-	-	L50207001	1028616	Volkswage	37632	Pass	Not Applic	12-May-15
-	-	-	L50207005	1028614	Volkswage	37612	Pass	Not Applic	12-May-15
-	-	-	L50207005	1028614	Volkswage	37612	Pass	Not Applic	12-May-15
-	-	-	L50207005	1028614	Volkswage	37612	Pass	Not Applic	12-May-15
-	-	-	L50207001	1028616	Volkswage	37632	Pass	Not Applic	12-May-15
-	-	-	L50207003	1028615	Volkswage	37601	Pass	Not Applic	12-May-15
-	-	-	L50207003	1028615	Volkswage	37601	Pass	Not Applic	12-May-15
-	-	-	L50207003	1028615	Volkswage	37601	Pass	Not Applic	12-May-15
-	-	-	L50207005	1028614	Volkswage	37612	Pass	Not Applic	12-May-15
-	-	-	L50207005	1028614	Volkswage	37612	Pass	Not Applic	12-May-15
-	-	-	L50207005	1028614	Volkswage	37612	Pass	Not Applic	12-May-15
-	-	-	L50207001	1028616	Volkswage	37632	Pass	Not Applic	12-May-15
-	-	-	L50207003	1028615	Volkswage	37601	Pass	Not Applic	12-May-15
-	-	-	L50207003	1028615	Volkswage	37601	Pass	Not Applic	12-May-15
-	-	-	L50207005	1028614	Volkswage	37612	Pass	Not Applic	12-May-15
-	-	-	L50207003	1028615	Volkswage	37601	Pass	Not Applic	12-May-15
-	-	-	L50207005	1028614	Volkswage	37612	Pass	Not Applic	12-May-15
-	-	-	L50207001	1028616	Volkswage	37632	Pass	Not Applic	12-May-15
-	-	-	20150121	1027503	Test Cente	17927	Pass	Pass	21-Jan-15
-	-	-	20150122	1027505	Test Cente	17955	Pass	Pass	22-Jan-15
-	-	-	20150122	1027505	Test Cente	17955	Pass	Pass	22-Jan-15
-	-	-	20150121	1027503	Test Cente	17927	Pass	Pass	21-Jan-15
-	-	-	20150122	1027504	Test Cente	17976	Pass	Pass	22-Jan-15
-	-	-	20150122	1027504	Test Cente	17976	Pass	Pass	22-Jan-15
-	-	-	20150121	1027503	Test Cente	17927	Pass	Pass	21-Jan-15
-	-	-	20150121	1027503	Test Cente	17927	Pass	Pass	21-Jan-15
-	-	-	20150121	1027503	Test Cente	17927	Pass	Pass	21-Jan-15
-	-	-	20150121	1027503	Test Cente	17927	Pass	Pass	21-Jan-15
-	-	-	20150122	1027505	Test Cente	17955	Pass	Pass	22-Jan-15
-	-	-	20150122	1027504	Test Cente	17976	Pass	Pass	22-Jan-15
-	-	-	20150122	1027505	Test Cente	17955	Pass	Pass	22-Jan-15
-	-	-	20150121	1027507	Test Cente	17955	Pass	Pass	21-Jan-15
-	-	-	20150121	1027503	Test Cente	17927	Pass	Pass	21-Jan-15
-	-	-	20150121	1027503	Test Cente	17927	Pass	Pass	21-Jan-15
-	-	-	20150121	1027503	Test Cente	17927	Pass	Pass	21-Jan-15

-	-	-	20150122	1027504	Test Cente	17976	Pass	Pass 22-Jan-15
-	-	-	20150123	1027506	Test Cente	18010	Pass	Pass 23-Jan-15
-	-	-	20150122	1027504	Test Cente	17976	Pass	Pass 22-Jan-15
-	-	-	20150122	1027505	Test Cente	17955	Pass	Pass 22-Jan-15
-	-	-	20150122	1027505	Test Cente	17955	Pass	Pass 22-Jan-15
-	-	-	L50200003	1028457	Volkswage	11697	Pass	Not Applic 1-May-15
-	-	-	L50200001	1028458	Volkswage	11728	Pass	Not Applic 1-May-15
-	-	-	L50200001	1028458	Volkswage	11728	Pass	Not Applic 1-May-15
-	-	-	L50200001	1028458	Volkswage	11728	Pass	Not Applic 1-May-15
-	-	-	L50200003	1028457	Volkswage	11697	Pass	Not Applic 1-May-15
-	-	-	L50200005	1028456	Volkswage	11708	Pass	Not Applic 1-May-15
-	-	-	L50200005	1028456	Volkswage	11708	Pass	Not Applic 1-May-15
-	-	-	L50200005	1028456	Volkswage	11708	Pass	Not Applic 1-May-15
-	-	-	L50200001	1028458	Volkswage	11728	Pass	Not Applic 1-May-15
-	-	-	L50200003	1028457	Volkswage	11697	Pass	Not Applic 1-May-15
-	-	-	L50200003	1028457	Volkswage	11697	Pass	Not Applic 1-May-15
-	-	-	L50200005	1028456	Volkswage	11708	Pass	Not Applic 1-May-15
-	-	-	L50200001	1028458	Volkswage	11728	Pass	Not Applic 1-May-15
-	-	-	L50200003	1028457	Volkswage	11697	Pass	Not Applic 1-May-15
-	-	-	L50200003	1028457	Volkswage	11697	Pass	Not Applic 1-May-15
-	-	-	L50200005	1028456	Volkswage	11708	Pass	Not Applic 1-May-15
-	-	-	L50200005	1028456	Volkswage	11708	Pass	Not Applic 1-May-15
-	-	-	L50200001	1028458	Volkswage	11728	Pass	Not Applic 1-May-15
-	-	-	L50200005	1028456	Volkswage	11708	Pass	Not Applic 1-May-15
-	-	-	L50200005	1028456	Volkswage	11708	Pass	Not Applic 1-May-15
-	-	-	L50200005	1028456	Volkswage	11708	Pass	Not Applic 1-May-15
-	-	-	L50200003	1028457	Volkswage	11697	Pass	Not Applic 1-May-15
-	-	-	L50200005	1028456	Volkswage	11708	Pass	Not Applic 1-May-15
-	-	-	L50200001	1028458	Volkswage	11728	Pass	Not Applic 1-May-15
-	-	-	L50200001	1028458	Volkswage	11728	Pass	Not Applic 1-May-15
-	-	-	L50200003	1028457	Volkswage	11697	Pass	Not Applic 1-May-15
-	-	-	L50200003	1028457	Volkswage	11697	Pass	Not Applic 1-May-15
-	-	-	L50200003	1028457	Volkswage	11697	Pass	Not Applic 1-May-15
-	-	-	L50200003	1028457	Volkswage	11697	Pass	Not Applic 1-May-15
-	-	-	L50200005	1028456	Volkswage	11708	Pass	Not Applic 1-May-15
-	-	-	L50200005	1028456	Volkswage	11708	Pass	Not Applic 1-May-15
-	-	-	L50200001	1028458	Volkswage	11728	Pass	Not Applic 1-May-15
-	-	-	L50200001	1028458	Volkswage	11728	Pass	Not Applic 1-May-15
-	-	-	L50200001	1028458	Volkswage	11728	Pass	Not Applic 1-May-15
-	-	-	20141213	1026942	Test Cente	13264	Pass	Pass 13-Dec-14
-	-	-	20141213	1026942	Test Cente	13264	Pass	Pass 13-Dec-14
-	-	-	20141213	1026944	Test Cente	13275	Pass	Pass 13-Dec-14
-	-	-	20141213	1026944	Test Cente	13275	Pass	Pass 13-Dec-14
-	-	-	20141213	1026942	Test Cente	13264	Pass	Pass 13-Dec-14
-	-	-	20141213	1026944	Test Cente	13275	Pass	Pass 13-Dec-14

-	-	-	20141213	1026944	Test Cente	13275	Pass	Pass	13-Dec-14
-	-	-	20141213	1026942	Test Cente	13264	Pass	Pass	13-Dec-14
-	-	-	20141213	1026942	Test Cente	13264	Pass	Pass	13-Dec-14
-	-	-	20141213	1026943	Test Cente	13296	Pass	Pass	13-Dec-14
-	-	-	20141213	1026943	Test Cente	13296	Pass	Pass	13-Dec-14
-	-	-	20141213	1026943	Test Cente	13296	Pass	Pass	13-Dec-14
-	-	-	20141213	1026944	Test Cente	13275	Pass	Pass	13-Dec-14
-	-	-	20141213	1026944	Test Cente	13275	Pass	Pass	13-Dec-14
-	-	-	20141213	1026942	Test Cente	13264	Pass	Pass	13-Dec-14
-	-	-	20141213	1026943	Test Cente	13296	Pass	Pass	13-Dec-14
-	-	-	20141213	1026942	Test Cente	13264	Pass	Pass	13-Dec-14
-	-	-	20141213	1026942	Test Cente	13264	Pass	Pass	13-Dec-14
-	-	-	20141213	1026942	Test Cente	13264	Pass	Pass	13-Dec-14
-	-	-	20141213	1026943	Test Cente	13296	Pass	Pass	13-Dec-14
-	-	-	20141210	1026884	Test Cente	11912	Pass	Pass	12-Oct-14
-	-	-	20141210	1026885	Test Cente	11944	Pass	Pass	12-Oct-14
-	-	-	20141210	1026884	Test Cente	11912	Pass	Pass	12-Oct-14
-	-	-	20141210	1026884	Test Cente	11912	Pass	Pass	12-Oct-14
-	-	-	20141210	1026884	Test Cente	11912	Pass	Pass	12-Oct-14
-	-	-	20141210	1026885	Test Cente	11944	Pass	Pass	12-Oct-14
-	-	-	20141210	1026884	Test Cente	11912	Pass	Pass	12-Oct-14
-	-	-	20141210	1026885	Test Cente	11944	Pass	Pass	12-Oct-14
-	-	-	20141210	1026885	Test Cente	11944	Pass	Pass	12-Oct-14
-	-	-	20141210	1026886	Test Cente	11923	Pass	Pass	10-Dec-14
-	-	-	20141210	1026886	Test Cente	11923	Pass	Pass	10-Dec-14
-	-	-	20141210	1026884	Test Cente	11912	Pass	Pass	12-Oct-14
-	-	-	20141210	1026884	Test Cente	11912	Pass	Pass	12-Oct-14
-	-	-	20141210	1026885	Test Cente	11944	Pass	Pass	12-Oct-14
-	-	-	20141210	1026884	Test Cente	11912	Pass	Pass	12-Oct-14
-	-	-	20141210	1026886	Test Cente	11923	Pass	Pass	10-Dec-14
-	-	-	20141210	1026884	Test Cente	11912	Pass	Pass	12-Oct-14
-	-	-	20141210	1026886	Test Cente	11923	Pass	Pass	10-Dec-14
-	-	-	20141210	1026886	Test Cente	11923	Pass	Pass	10-Dec-14
-	-	-	20141210	1026886	Test Cente	11923	Pass	Pass	10-Dec-14
-	-	-	20141024	1026358	Test Cente	29155	Pass	Pass	24-Oct-14
-	-	-	20141024	1026358	Test Cente	29155	Pass	Pass	24-Oct-14
-	-	-	20141024	1026358	Test Cente	29155	Pass	Pass	24-Oct-14
-	-	-	20141024	1026359	Test Cente	29166	Pass	Pass	24-Oct-14
-	-	-	20141024	1026358	Test Cente	29155	Pass	Pass	24-Oct-14
-	-	-	20141024	1026358	Test Cente	29155	Pass	Pass	24-Oct-14
-	-	-	20141024	1026359	Test Cente	29166	Pass	Pass	24-Oct-14
-	-	-	20141027	1026360	Test Cente	29182	Pass	Pass	27-Oct-14
-	-	-	20141027	1026360	Test Cente	29182	Pass	Pass	27-Oct-14
-	-	-	20141024	1026358	Test Cente	29155	Pass	Pass	24-Oct-14
-	-	-	20141024	1026358	Test Cente	29155	Pass	Pass	24-Oct-14

-	-	-	20141027	1026360	Test Cente	29182	Pass	Pass	27-Oct-14
-	-	-	20141027	1026360	Test Cente	29182	Pass	Pass	27-Oct-14
-	-	-	20141027	1026360	Test Cente	29182	Pass	Pass	27-Oct-14
-	-	-	20141027	1026360	Test Cente	29182	Pass	Pass	27-Oct-14
-	-	-	20141024	1026358	Test Cente	29155	Pass	Pass	24-Oct-14
-	-	-	20141024	1026359	Test Cente	29166	Pass	Pass	24-Oct-14
-	-	-	20141024	1026359	Test Cente	29166	Pass	Pass	24-Oct-14
-	-	-	20141024	1026358	Test Cente	29155	Pass	Pass	24-Oct-14
-	-	-	20141024	1026359	Test Cente	29166	Pass	Pass	24-Oct-14
-	-	-	20140910	1025654	Test Cente	16411	Pass	Pass	10-Sep-14
-	-	-	20140910	1025654	Test Cente	16411	Pass	Pass	10-Sep-14
-	-	-	20140910	1025654	Test Cente	16411	Pass	Pass	10-Sep-14
-	-	-	20140910	1025654	Test Cente	16411	Pass	Pass	10-Sep-14
-	-	-	20140910	1025656	Test Cente	16422	Pass	Pass	10-Sep-14
-	-	-	20140910	1025654	Test Cente	16411	Pass	Pass	10-Sep-14
-	-	-	20140910	1025654	Test Cente	16411	Pass	Pass	10-Sep-14
-	-	-	20140910	1025655	Test Cente	16443	Pass	Pass	10-Sep-14
-	-	-	20140910	1025656	Test Cente	16422	Pass	Pass	10-Sep-14
-	-	-	20140910	1025655	Test Cente	16443	Pass	Pass	10-Sep-14
-	-	-	20140910	1025656	Test Cente	16422	Pass	Pass	10-Sep-14
-	-	-	20140910	1025656	Test Cente	16422	Pass	Pass	10-Sep-14
-	-	-	20140910	1025654	Test Cente	16411	Pass	Pass	10-Sep-14
-	-	-	20140910	1025655	Test Cente	16443	Pass	Pass	10-Sep-14
-	-	-	20140910	1025655	Test Cente	16443	Pass	Pass	10-Sep-14
-	-	-	20140910	1025656	Test Cente	16422	Pass	Pass	10-Sep-14
-	-	-	20140910	1025654	Test Cente	16411	Pass	Pass	10-Sep-14
-	-	-	20140910	1025656	Test Cente	16422	Pass	Pass	10-Sep-14
-	-	-	20140910	1025654	Test Cente	16411	Pass	Pass	10-Sep-14
-	-	-	20140910	1025655	Test Cente	16443	Pass	Pass	10-Sep-14
-	-	-	20140521	1023675	Test Cente	19383	Pass	Pass	21-May-14
-	-	-	20140530	1023676	Test Cente	19439	Pass	Pass	30-May-14
-	-	-	20140530	1023673	Test Cente	19428	Pass	Pass	30-May-14
-	-	-	20140521	1023675	Test Cente	19383	Pass	Pass	21-May-14
-	-	-	20140521	1023674	Test Cente	19404	Pass	Pass	21-May-14
-	-	-	20140530	1023673	Test Cente	19428	Pass	Pass	30-May-14
-	-	-	20140530	1023673	Test Cente	19428	Pass	Pass	30-May-14
-	-	-	20140530	1023673	Test Cente	19428	Pass	Pass	30-May-14
-	-	-	20140530	1023673	Test Cente	19428	Pass	Pass	30-May-14
-	-	-	20140521	1023675	Test Cente	19383	Pass	Pass	21-May-14
-	-	-	20140521	1023677	Test Cente	19383	Pass	Pass	21-May-14
-	-	-	20140530	1023673	Test Cente	19428	Pass	Pass	30-May-14
-	-	-	20140530	1023673	Test Cente	19428	Pass	Pass	30-May-14
-	-	-	20140521	1023674	Test Cente	19404	Pass	Pass	21-May-14
-	-	-	20140530	1023673	Test Cente	19428	Pass	Pass	30-May-14
-	-	-	20140521	1023674	Test Cente	19404	Pass	Pass	21-May-14

-	-	-	20140521	1023674	Test Cente	19404	Pass	Pass	21-May-14
-	-	-	20140521	1023675	Test Cente	19383	Pass	Pass	21-May-14
-	-	-	20140530	1023673	Test Cente	19428	Pass	Pass	30-May-14
-	-	-	20140521	1023674	Test Cente	19404	Pass	Pass	21-May-14
-	-	-	20140521	1023675	Test Cente	19383	Pass	Pass	21-May-14
-	-	-	20140521	1023675	Test Cente	19383	Pass	Pass	21-May-14
-	-	-	20141030	1026476	Test Cente	23117	Pass	Not Applic	30-Oct-14
-	-	-	20141031	1026478	Test Cente	23146	Pass	Not Applic	31-Oct-14
-	-	-	20141030	1026476	Test Cente	23117	Pass	Not Applic	30-Oct-14
-	-	-	20141030	1026476	Test Cente	23117	Pass	Not Applic	30-Oct-14
-	-	-	20141031	1026477	Test Cente	23166	Pass	Not Applic	31-Oct-14
-	-	-	20141031	1026477	Test Cente	23166	Pass	Not Applic	31-Oct-14
-	-	-	20141031	1026477	Test Cente	23166	Pass	Not Applic	31-Oct-14
-	-	-	20141031	1026478	Test Cente	23146	Pass	Not Applic	31-Oct-14
-	-	-	20141031	1026478	Test Cente	23146	Pass	Not Applic	31-Oct-14
-	-	-	20141030	1026476	Test Cente	23117	Pass	Not Applic	30-Oct-14
-	-	-	20141031	1026477	Test Cente	23166	Pass	Not Applic	31-Oct-14
-	-	-	20141030	1026476	Test Cente	23117	Pass	Not Applic	30-Oct-14
-	-	-	20141031	1026478	Test Cente	23146	Pass	Not Applic	31-Oct-14
-	-	-	20141031	1026478	Test Cente	23146	Pass	Not Applic	31-Oct-14
-	-	-	20141105	1026479	Test Cente	23198	Pass	Not Applic	5-Nov-14
-	-	-	10312014	1026480	Test Cente	23145	Pass	Not Applic	31-Oct-14
-	-	-	20141030	1026476	Test Cente	23117	Pass	Not Applic	30-Oct-14
-	-	-	20141031	1026477	Test Cente	23166	Pass	Not Applic	31-Oct-14
-	-	-	20141031	1026478	Test Cente	23146	Pass	Not Applic	31-Oct-14
-	-	-	20141030	1026476	Test Cente	23117	Pass	Not Applic	30-Oct-14
-	-	-	20141030	1026476	Test Cente	23117	Pass	Not Applic	30-Oct-14
-	-	-	20141030	1026476	Test Cente	23117	Pass	Not Applic	30-Oct-14
-	-	-	20150206	1028592	Test Cente	45256	Pass	Not Applic	6-Feb-15
-	-	-	20150206	1028594	Test Cente	45267	Pass	Pass	6-Feb-15
-	-	-	20150206	1028594	Test Cente	45267	Pass	Pass	6-Feb-15
-	-	-	20150206	1028592	Test Cente	45256	Pass	Not Applic	6-Feb-15
-	-	-	20150206	1028593	Test Cente	45268	Pass	Not Applic	6-Feb-15
-	-	-	20150206	1028594	Test Cente	45267	Pass	Pass	6-Feb-15
-	-	-	20150206	1028592	Test Cente	45256	Pass	Not Applic	6-Feb-15
-	-	-	20150206	1028592	Test Cente	45256	Pass	Not Applic	6-Feb-15
-	-	-	20150206	1028592	Test Cente	45256	Pass	Not Applic	6-Feb-15
-	-	-	20150206	1028592	Test Cente	45256	Pass	Not Applic	6-Feb-15
-	-	-	20150206	1028592	Test Cente	45256	Pass	Not Applic	6-Feb-15
-	-	-	20150206	1028593	Test Cente	45268	Pass	Not Applic	6-Feb-15
-	-	-	20150206	1028593	Test Cente	45268	Pass	Not Applic	6-Feb-15
-	-	-	20150206	1028594	Test Cente	45267	Pass	Pass	6-Feb-15
-	-	-	20150206	1028592	Test Cente	45256	Pass	Not Applic	6-Feb-15
-	-	-	20150206	1028593	Test Cente	45268	Pass	Not Applic	6-Feb-15
-	-	-	20150206	1028594	Test Cente	45267	Pass	Pass	6-Feb-15

upposed to be Low Mileage. We did not receive a response for a real Low Mileage car so we tested this Fiat and subm

upposed to be Low Mileage. We did not receive response for a real Low Mileage car so we tested this car and subm								
upposed to be Low Mileage. We did not receive response for a real Low Mileage car so we tested this car and subm								
upposed to be Low Mileage. We did not receive response for a real Low Mileage car so we tested this car and subm								
-	-	-	20150206	1028392	Test Cente	45256	Pass	Not Applic 6-Feb-15
-	-	-	20150206	1028393	Test Cente	45288	Pass	Not Applic 6-Feb-15
-	-	-	20150206	1028394	Test Cente	45267	Pass	Pass 6-Feb-15
-	-	-	20140827	1025437	Test Cente	19943	Pass	Pass 27-Aug-14
-	-	-	20140827	1025437	Test Cente	19943	Pass	Pass 27-Aug-14
-	-	-	20140828	1025438	Test Cente	19974	Pass	Pass 28-Aug-14
-	-	-	20140827	1025437	Test Cente	19943	Pass	Pass 27-Aug-14
-	-	-	20140827	1025437	Test Cente	19943	Pass	Pass 27-Aug-14
-	-	-	20140828	1025438	Test Cente	19974	Pass	Pass 28-Aug-14
-	-	-	20140828	1025438	Test Cente	19974	Pass	Pass 28-Aug-14
-	-	-	20140828	1025439	Test Cente	19954	Pass	Pass 28-Aug-14
-	-	-	20140827	1025437	Test Cente	19943	Pass	Pass 27-Aug-14
-	-	-	20140828	1025439	Test Cente	19954	Pass	Pass 28-Aug-14
-	-	-	20140827	1025437	Test Cente	19943	Pass	Pass 27-Aug-14
-	-	-	20140827	1025437	Test Cente	19943	Pass	Pass 27-Aug-14
-	-	-	20140828	1025439	Test Cente	19954	Pass	Pass 28-Aug-14
-	-	-	20140828	1025438	Test Cente	19974	Pass	Pass 28-Aug-14
-	-	-	20140828	1025438	Test Cente	19974	Pass	Pass 28-Aug-14
-	-	-	20140828	1025438	Test Cente	19974	Pass	Pass 28-Aug-14
-	-	-	20140827	1025437	Test Cente	19943	Pass	Pass 27-Aug-14
-	-	-	20140828	1025439	Test Cente	19954	Pass	Pass 28-Aug-14
-	-	-	20140827	1025437	Test Cente	19943	Pass	Pass 27-Aug-14
-	-	-	20140828	1025439	Test Cente	19954	Pass	Pass 28-Aug-14
-	-	-	20140828	1025439	Test Cente	19954	Pass	Pass 28-Aug-14
-	-	-	20141028	1026333	Test Cente	27996	Pass	Pass 28-Oct-14
-	-	-	20141028	1026333	Test Cente	27996	Pass	Pass 28-Oct-14
-	-	-	20141028	1026334	Test Cente	27975	Pass	Pass 28-Oct-14
-	-	-	20141028	1026334	Test Cente	27975	Pass	Pass 28-Oct-14
-	-	-	20141028	1026334	Test Cente	27975	Pass	Pass 28-Oct-14
-	-	-	20141028	1026333	Test Cente	27996	Pass	Pass 28-Oct-14
-	-	-	20141028	1026334	Test Cente	27975	Pass	Pass 28-Oct-14
-	-	-	20141028	1026332	Test Cente	27964	Pass	Pass 28-Oct-14
-	-	-	20141028	1026332	Test Cente	27964	Pass	Pass 28-Oct-14
-	-	-	20141028	1026334	Test Cente	27975	Pass	Pass 28-Oct-14
-	-	-	20141028	1026332	Test Cente	27964	Pass	Pass 28-Oct-14
-	-	-	20141028	1026333	Test Cente	27996	Pass	Pass 28-Oct-14
-	-	-	20141028	1026332	Test Cente	27964	Pass	Pass 28-Oct-14
-	-	-	20141028	1026333	Test Cente	27996	Pass	Pass 28-Oct-14
-	-	-	20141028	1026332	Test Cente	27964	Pass	Pass 28-Oct-14
-	-	-	20141028	1026334	Test Cente	27975	Pass	Pass 28-Oct-14
-	-	-	20141028	1026332	Test Cente	27964	Pass	Pass 28-Oct-14
-	-	-	20141028	1026332	Test Cente	27964	Pass	Pass 28-Oct-14
-	-	-	20141028	1026332	Test Cente	27964	Pass	Pass 28-Oct-14
-	-	-	20141028	1026332	Test Cente	27964	Pass	Pass 28-Oct-14
-	-	-	20141029	1026328	Test Cente	24984	Pass	Pass 29-Oct-14
-	-	-	20141029	1026329	Test Cente	24964	Pass	Pass 29-Oct-14

-	-	-	20141029	1026327	Test Cente	24953	Pass	Pass	29-Oct-14
-	-	-	20141029	1026327	Test Cente	24953	Pass	Pass	29-Oct-14
-	-	-	20141029	1026327	Test Cente	24953	Pass	Pass	29-Oct-14
-	-	-	20141029	1026328	Test Cente	24984	Pass	Pass	29-Oct-14
-	-	-	20141029	1026327	Test Cente	24953	Pass	Pass	29-Oct-14
-	-	-	20141029	1026329	Test Cente	24964	Pass	Pass	29-Oct-14
-	-	-	20141029	1026329	Test Cente	24964	Pass	Pass	29-Oct-14
-	-	-	20141029	1026329	Test Cente	24964	Pass	Pass	29-Oct-14
-	-	-	20141029	1026327	Test Cente	24953	Pass	Pass	29-Oct-14
-	-	-	20141029	1026328	Test Cente	24984	Pass	Pass	29-Oct-14
-	-	-	20141029	1026328	Test Cente	24984	Pass	Pass	29-Oct-14
-	-	-	20141029	1026329	Test Cente	24964	Pass	Pass	29-Oct-14
-	-	-	20141029	1026327	Test Cente	24953	Pass	Pass	29-Oct-14
-	-	-	20141029	1026329	Test Cente	24964	Pass	Pass	29-Oct-14
-	-	-	20141029	1026327	Test Cente	24953	Pass	Pass	29-Oct-14
-	-	-	20141029	1026327	Test Cente	24953	Pass	Pass	29-Oct-14
-	-	-	20141029	1026327	Test Cente	24953	Pass	Pass	29-Oct-14
-	-	-	20141029	1026328	Test Cente	24984	Pass	Pass	29-Oct-14
-	-	-	20140808	1025206	Test Cente	27675	Pass	Pass	8-Aug-14
-	-	-	20140808	1025207	Test Cente	27706	Pass	Pass	8-Aug-14
-	-	-	20140808	1025208	Test Cente	27686	Pass	Pass	8-Aug-14
-	-	-	20140808	1025206	Test Cente	27675	Pass	Pass	8-Aug-14
-	-	-	20140808	1025206	Test Cente	27675	Pass	Pass	8-Aug-14
-	-	-	20140808	1025207	Test Cente	27706	Pass	Pass	8-Aug-14
-	-	-	20140808	1025208	Test Cente	27686	Pass	Pass	8-Aug-14
-	-	-	20140808	1025206	Test Cente	27675	Pass	Pass	8-Aug-14
-	-	-	20140808	1025206	Test Cente	27675	Pass	Pass	8-Aug-14
-	-	-	20140808	1025207	Test Cente	27706	Pass	Pass	8-Aug-14
-	-	-	20140808	1025208	Test Cente	27686	Pass	Pass	8-Aug-14
-	-	-	20140808	1025208	Test Cente	27686	Pass	Pass	8-Aug-14
-	-	-	20140808	1025208	Test Cente	27686	Pass	Pass	8-Aug-14
-	-	-	20140808	1025206	Test Cente	27675	Pass	Pass	8-Aug-14
-	-	-	20140808	1025206	Test Cente	27675	Pass	Pass	8-Aug-14
-	-	-	20140808	1025207	Test Cente	27706	Pass	Pass	8-Aug-14
-	-	-	20140808	1025206	Test Cente	27675	Pass	Pass	8-Aug-14
-	-	-	20140808	1025207	Test Cente	27706	Pass	Pass	8-Aug-14
-	-	-	20140808	1025208	Test Cente	27686	Pass	Pass	8-Aug-14
-	-	-	20140808	1025206	Test Cente	27675	Pass	Pass	8-Aug-14

TestCondition	Test Procedure	Fuel Type	SILUse	Trans Mode	Trans ConfigAt Test	TestAltitude	Dyno Type	RoadLoad Hp	DynaCoef f A
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	69	-
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	69	-32.81
As receive	2-day evap	Tier 2 Cert	N	Power	A	L	-	69	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-70.15

As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	64.9	-70.15
As receive(Federal fue	Tier 2 Cert -	Power	A	L	-	67.5	-
As receive(Federal fue	Tier 2 Cert N	Power	-	L	4WD Elect	67.5	5.11
As receive(Federal fue	Tier 2 Cert N	Power	-	L	4WD Elect	67.5	5.11
As receive(US06	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(Federal fue	Tier 2 Cert N	Power	-	L	4WD Elect	67.5	5.11
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(US06	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(US06	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(US06	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(2-day evap	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	-
As receive(Federal fue	Tier 2 Cert N	Power	-	L	4WD Elect	67.5	5.11
As receive(Federal fue	Tier 2 Cert N	Power	-	L	4WD Elect	67.5	5.11
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(US06	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(Federal fue	Tier 2 Cert N	Power	-	L	4WD Elect	67.5	5.11
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(Federal fue	Tier 2 Cert N	Power	-	L	4WD Elect	67.5	5.11
As receive(Federal fue	Tier 2 Cert N	Power	-	L	4WD Elect	67.5	5.11
As receive(Federal fue	Tier 2 Cert N	Power	-	L	4WD Elect	67.5	5.11
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	67.5	5.11
As receive(US06	Tier 2 Cert N	Power	A	L	4WD Elect	63.1	-71.13
As receive(Federal fue	Tier 2 Cert -	Power	A	L	-	63.1	-
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Elect	63.1	-71.13
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Elect	63.1	-71.13
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	63.1	-71.13
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	63.1	-71.13
As receive(2-day evap	Tier 2 Cert -	Power	A	L	-	63.1	-
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Elect	63.1	-71.13
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Elect	63.1	-71.13
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	63.1	-71.13
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	63.1	-71.13
As receive(US06	Tier 2 Cert N	Power	A	L	4WD Elect	63.1	-71.13
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Elect	63.1	-71.13

As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-71.13
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-71.13
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-71.13
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-71.13
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-71.13
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-71.13
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-71.13
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-71.13
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-71.13
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	4WD Elect	59.4	-5.67
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	4WD Elect	59.4	-5.67
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	4WD Elect	59.4	-5.67
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	59.4	-
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	4WD Elect	59.4	-5.67
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	4WD Elect	59.4	-5.67
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	2-day eva	Tier 2 Cert	Y	Power	A	L	-	59.4	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	59.4	-5.67
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	4WD Elect	59.4	-5.67
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	4WD Elect	59.4	-5.67
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	4WD Elect	59.4	-5.67
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	4WD Elect	59.4	-5.67
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44

As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	5.44
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-13.72
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	CVS 75 anc	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23

As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	21.23
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.8	-54.75
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6

As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	74.8	7.6
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	2-day evap	Tier 2 Cert	N	Power	A	L	-	73.7	-
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	73.7	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	73.7	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	2-day evap	Tier 2 Cert	N	Power	A	L	-	52.4	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81

As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	52.4	64.81
As receive	Federal fue	Tier 2 Cert	-	Power	A	L	-	52.4	-
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	40.43
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	16.71
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	16.71
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	16.71
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	16.71
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	16.71
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	16.71
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	16.71
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	16.71
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	16.71
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	19.46
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	16.71
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	19.46
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	19.46
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	16.71
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	19.46
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	19.46
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Elect	57.8	16.71

As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	57.8	19.46
As receive(Federal fu(Tier 2 Cert N	Power	A	L	4WD Elect	57.8	16.71
As receive(US06	Tier 2 Cert N	Power	A	L	4WD Elect	57.8	16.71
As receive(Federal fu(Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(Federal fu(Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(Federal fu(Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(Federal fu(Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(Federal fu(Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(Federal fu(Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(Federal fu(Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(Federal fu(Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(Federal fu(Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	44.4	42.03
As receive(Federal fu(Tier 2 Cert N	Power	A	L	4WD Elect	69	-32.12
As receive(Federal fu(Tier 2 Cert N	Power	A	L	4WD Elect	69	-32.12
As receive(Federal fu(Tier 2 Cert N	Power	A	L	4WD Elect	69	-32.12
As receive(US06	Tier 2 Cert N	Power	A	L	4WD Elect	69	-17.86
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	69	-17.86
As receive(US06	Tier 2 Cert N	Power	A	L	4WD Elect	69	-17.86
As receive(Federal fu(Tier 2 Cert N	Power	A	L	4WD Elect	69	-32.12
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	69	-17.86
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	69	-17.86
As receive(Federal fu(Tier 2 Cert N	Power	A	L	4WD Elect	69	-32.12
As receive(Federal fu(Tier 2 Cert N	Power	A	L	4WD Elect	69	-32.12
As receive(US06	Tier 2 Cert N	Power	A	L	4WD Elect	69	-17.86
As receive(US06	Tier 2 Cert N	Power	A	L	4WD Elect	69	-17.86
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	69	-17.86
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	69	-17.86
As receive(Federal fu(Tier 2 Cert -	Power	A	L	-	69-	
As receive(2-day evap	Tier 2 Cert N	Power	A	L	-	69-	
As receive(Federal fu(Tier 2 Cert N	Power	A	L	4WD Elect	69	-32.12
As receive(Federal fu(Tier 2 Cert N	Power	A	L	4WD Elect	69	-32.12
As receive(Federal fu(Tier 2 Cert N	Power	A	L	4WD Elect	69	-32.12
As receive(US06	Tier 2 Cert N	Power	A	L	4WD Elect	69	-17.86
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	69	-17.86

As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	2-day evap	Tier 2 Cert	-	Power	A	L	-	61.7	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-72.62
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	61.7	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	61.7	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	2-day evap	Tier 2 Cert	-	Power	A	L	-	61.7	-
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-9.01
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	72.8	-46.39

As receive	US06	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	US06	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	US06	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	US06	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	Federal fu	Tier 2 Cert -	Power	A	L	-	72.8	-
As receive	US06	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	72.8	-46.39
As receive	2-day evap	Tier 2 Cert N	Power	A	L	-	72.8	-
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	US06	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	US06	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	US06	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	US06	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	US06	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (48	46.1	52.14
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	72.6	83.41
As receive	US06	Tier 2 Cert N	Power	A	L	Electric (48	72.6	83.41
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	72.6	83.41
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	72.6	83.41

As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	72.6	83.41
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	72.6	83.41
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	72.6	83.41
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	72.6	83.41
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	72.6	83.41
As receive	2-day eva	Tier 2 Cert	Y	Power	A	L	-	72.6	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	72.6	83.41
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	72.6	83.41
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	72.6	83.41
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	72.6	83.41
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	72.6	83.41
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	72.6	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	72.6	83.41
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	72.6	83.41
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	72.6	83.41
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	72.6	83.41
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	72.6	83.41
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	72.6	83.41
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	2-day eva	Tier 2 Cert	-	Power	A	L	-	56.2	-
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	56.2	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	56.2	71.64
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95

As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	4.95
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-45.2
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-45.2
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-26.85
As receive	2-day eva	Tier 2 Cert	-	Power	A	L	-	-	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-45.2
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-45.2
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-26.85
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-26.85
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-45.2
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-45.2
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-26.85
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-26.85
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-26.85
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-26.85
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-45.2
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-26.85
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-26.85
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-45.2
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-26.85
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-26.85
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-45.2
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	-	-
As receive	HWFE	Tier 2 Cert	N	Power	-	L	Electric (48	36	33.04
As receive	US06	Tier 2 Cert	N	Power	-	L	Electric (48	36	33.04
As receive	Federal fu	Tier 2 Cert	N	Power	-	L	Electric (48	36	33.04
As receive	HWFE	Tier 2 Cert	N	Power	-	L	Electric (48	36	33.04
As receive	US06	Tier 2 Cert	N	Power	-	L	Electric (48	36	33.04
As receive	US06	Tier 2 Cert	N	Power	-	L	Electric (48	36	33.04
As receive	Federal fu	Tier 2 Cert	N	Power	-	L	Electric (48	36	33.04
As receive	Federal fu	Tier 2 Cert	N	Power	-	L	Electric (48	36	33.04

As receive	US06	Tier 2 Cert	N	Power	-	L	Electric (4	36	33.04
As receive	Federal fu	Tier 2 Cert	N	Power	-	L	Electric (4	36	33.04
As receive	Federal fu	Tier 2 Cert	N	Power	-	L	Electric (4	36	33.04
As receive	HWFE	Tier 2 Cert	N	Power	-	L	Electric (4	36	33.04
As receive	US06	Tier 2 Cert	N	Power	-	L	Electric (4	36	33.04
As receive	Federal fu	Tier 2 Cert	N	Power	-	L	Electric (4	36	33.04
As receive	Federal fu	Tier 2 Cert	N	Power	-	L	Electric (4	36	33.04
As receive	Federal fu	Tier 2 Cert	N	Power	-	L	Electric (4	36	33.04
As receive	HWFE	Tier 2 Cert	N	Power	-	L	Electric (4	36	33.04
As receive	HWFE	Tier 2 Cert	N	Power	-	L	Electric (4	36	33.04
As receive	Federal fu	Tier 2 Cert	N	Power	-	L	Electric (4	36	33.04
As receive	US06	Tier 2 Cert	N	Power	-	L	Electric (4	36	33.04
As receive	Federal fu	Tier 2 Cert	N	Power	-	L	Electric (4	36	33.04
As receive	HWFE	Tier 2 Cert	N	Power	-	L	Electric (4	36	33.04
As receive	HWFE	Tier 2 Cert	N	Power	-	L	Electric (4	36	33.04
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	36	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	2-day evap	Tier 2 Cert	N	Power	A	L	-	36	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	36	36.1
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	54.9	65.36
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	54.9	65.36
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	54.9	65.36
As receive	2-day evap	Tier 2 Cert	N	Power	A	L	-	54.9	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	54.9	65.36

As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	54.9	65.36
As receive	Federal fue	Tier 2 Cert	-	Power	A	L	-	54.9	-
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	54.9	65.36
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	54.9	65.36
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	54.9	65.36
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	54.9	65.36
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	54.9	65.36
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	54.9	65.36
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	54.9	65.36
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	54.9	65.36
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	54.9	65.36
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	54.9	65.36
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	54.9	65.36
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	54.9	65.36
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	54.9	65.36
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	54.9	65.36
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	54.9	65.36
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	2-day evap	Tier 2 Cert	N	Power	A	L	-	56.2	-
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	Federal fue	Tier 2 Cert	-	Power	A	L	-	56.2	-
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56.2	79.64
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	2-day evap	Tier 2 Cert	-	Power	A	L	-	56	-

As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	Federal fue	Tier 2 Cert	-	Power	A	L	-	56	-
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	100.86
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	33.15
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	33.15
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	33.15
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	33.15
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	33.15
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	33.15
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	33.15
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	33.15
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	33.15

As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	33.15
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	33.15
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	33.15
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	33.15
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	33.15
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	33.15
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	33.15
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	33.15
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	33.15
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	33.15
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	33.15
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	18.09
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11

As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	51.3	50.11
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	51.3	32.12
As receive	CVS 75 an	Federal Ce	N	Not applic	A	L	Electric (4		9.68
As receive	CVS 75 an	Federal Ce	N	Not applic	A	L	Electric (4		9.68
As receive	CVS 75 an	Federal Ce	N	Not applic	A	L	Electric (4		9.68
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4		9.68
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4		9.68
As receive	CVS 75 an	Federal Ce	N	Not applic	A	L	Electric (4		9.68
As receive	CVS 75 an	Federal Ce	N	Not applic	A	L	Electric (4		9.68
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4		9.68
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4		9.68
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4		9.68
As receive	CVS 75 an	Federal Ce	N	Not applic	A	L	Electric (4		9.68
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4		9.68
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4		9.68
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4		9.68
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4		9.68

As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	CVS 75 an	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	CVS 75 an	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	CVS 75 an	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	CVS 75 an	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	CVS 75 an	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	CVS 75 an	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	9.68
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4	16.76
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (4	16.76

As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-	16.76
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	16.76
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	16.76
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	16.76
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	16.76
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (48-	16.76
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (48-	16.76
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (48-	16.76
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-	16.76
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (48-	16.76
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-	16.76
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	16.76
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (48-	13.62

As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (48-	13.62
As receive	Federal fue	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	Federal fue	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	Federal fue	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	Federal fue	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	Federal fue	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	Federal fue	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	Federal fue	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	Federal fue	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	Federal fue	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	Federal fue	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	Federal fue	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	Federal fue	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-	15.08
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	40.9 42.25
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (48	40.9 42.25
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (48	40.9 42.25
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (48	40.9 42.25

As receive	US06	Federal Ce	N	Power	A	L	Electric (48	40.9	42.25
As receive	US06	Federal Ce	N	Power	A	L	Electric (48	40.9	42.25
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	40.9	42.25
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	40.9	42.25
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	40.9	42.25
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	40.9	42.25
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	40.9	42.25
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	40.9	42.25
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	40.9	42.25
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	40.9	42.25
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	40.9	42.25
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	40.9	42.25
As receive	US06	Federal Ce	N	Power	A	L	Electric (48	40.9	42.25
As receive	US06	Federal Ce	N	Power	A	L	Electric (48	40.9	42.25
As receive	US06	Federal Ce	N	Power	A	L	Electric (48	40.9	42.25
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	40.9	42.25
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	Federal fu	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-		10.01
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (48-		10.01

As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4	10.01
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	10.01
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	10.01
As receive	HWFE	Federal Ce	N	Not applic	A	L	Electric (4	10.01
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	10.01
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	10.01
As receive	US06	Federal Ce	N	Not applic	A	L	Electric (4	10.01
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	45.1 46.62
As receive	CVS 75 and	Federal Ce	N	Not applic	M	L	Electric (4	42.4 43.73
As receive	CVS 75 and	Federal Ce	N	Not applic	M	L	Electric (4	42.4 43.73
As receive	CVS 75 and	Federal Ce	N	Not applic	M	L	Electric (4	42.4 43.73
As receive	CVS 75 and	Federal Ce	N	Not applic	M	L	Electric (4	42.4 43.73
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (4	42.4 43.73
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (4	42.4 43.73
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (4	42.4 43.73
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (4	42.4 43.73
As receive	CVS 75 and	Federal Ce	N	Not applic	M	L	Electric (4	42.4 43.73
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (4	42.4 43.73
As receive	CVS 75 and	Federal Ce	N	Not applic	M	L	Electric (4	42.4 43.73
As receive	CVS 75 and	Federal Ce	N	Not applic	M	L	Electric (4	42.4 43.73
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (4	42.4 43.73
As receive	CVS 75 and	Federal Ce	N	Not applic	M	L	Electric (4	42.4 43.73
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (4	42.4 43.73
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (4	42.4 43.73

As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (4	42.4	43.73
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (4	42.4	43.73
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (4	42.4	43.73
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (4	42.4	43.73
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	2-day eva	Tier 2 Cert	N	Not applic	A	L	-	-	9.5
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.5
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.39
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.39
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.39
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.39
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.39
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4		9.39

As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	Federal fu	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (4	9.39
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	60.3 22.34
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	60.3 22.34
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	60.3 22.34
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	60.3 22.34
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	60.3 22.34
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	60.3 22.34
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	60.3 22.34
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	60.3 22.34
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	60.3 22.34
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	60.3 22.34
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	60.3 22.34
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	60.3 22.34
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	60.3 22.34
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	60.3 -
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	60.3 22.34
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	60.3 22.34
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	60.3 22.34

As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	60.3	22.34
As receive	2-day evap	Tier 2 Cert	Y	Power	A	L	-	60.3	-
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	60.3	22.34
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	60.3	22.34
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	60.3	22.34
As receive	Federal fue	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	Federal fue	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	Federal fue	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	Federal fue	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	Federal fue	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	Federal fue	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	Federal fue	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	Federal fue	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	Federal fue	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	Federal fue	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	Federal fue	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	HWFE	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	US06	Tier 2 Cert	N	Not applic	A	L	Electric (48	-	6.55
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	53.8	48.56
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	53.8	48.56
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	53.8	48.56
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	53.8	48.56
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	53.8	48.56
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	53.8	48.56

As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	53.8	48.56
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	53.8	48.56
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	53.8	48.56
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	53.8	48.56
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	53.8	48.56
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	53.8	48.56
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	53.8	48.56
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	53.8	48.56
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	53.8	48.56
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	53.8	48.56
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	53.8	48.56
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	53.8	48.56
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	53.8	48.56
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	53.8	48.56
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	53.2	48.2
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83

As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(HWFE	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(Federal fue	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(US06	Tier 2 Cert N	Power	A	L	Electric (48	42.3	54.83
As receive(Federal fue	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(Federal fue	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(Federal fue	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(Federal fue	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(HWFE	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(Federal fue	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(Federal fue	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(US06	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(HWFE	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(US06	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(HWFE	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(HWFE	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(Federal fue	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(US06	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(US06	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(HWFE	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(Federal fue	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(HWFE	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(Federal fue	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(US06	Tier 2 Cert N	Power	M	L	Electric (48	44.1	70
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Electi	60.3	53.1
As receive(2-day evap	Tier 2 Cert -	Power	A	L	-	60.3	-
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Electi	60.3	53.1
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Electi	60.3	53.1
As receive(US06	Tier 2 Cert N	Power	A	L	4WD Electi	60.3	53.1
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Electi	60.3	53.1
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Electi	60.3	53.1
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Electi	60.3	53.1
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Electi	60.3	53.1
As receive(HWFE	Tier 2 Cert N	Power	A	L	4WD Electi	60.3	53.1
As receive(Federal fue	Tier 2 Cert -	Power	A	L	-	60.3	-
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Electi	60.3	53.1
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Electi	60.3	53.1
As receive(US06	Tier 2 Cert N	Power	A	L	4WD Electi	60.3	53.1
As receive(Federal fue	Tier 2 Cert N	Power	A	L	4WD Electi	60.3	53.1
As receive(US06	Tier 2 Cert N	Power	A	L	4WD Electi	60.3	53.1

As receive	US06	Tier 2 Cert N	Power	A	L	4WD Elect	60.3	53.1
As receive	HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	60.3	53.1
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	60.3	53.1
As receive	US06	Tier 2 Cert N	Power	A	L	4WD Elect	60.3	53.1
As receive	HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	60.3	53.1
As receive	HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	60.3	53.1
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	HWFE	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	US06	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	US06	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	US06	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	HWFE	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	HWFE	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	US06	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	HWFE	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	HWFE	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	2-day evap	Tier 2 Cert -	Power	A	L	-	51.9	-
As receive	Federal fu	Tier 2 Cert -	Power	A	L	-	51.9	-
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	US06	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	HWFE	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	51.9	45.23
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	53.8	49.57
As receive	HWFE	Tier 2 Cert N	Power	A	L	Electric (48	53.8	49.57
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	53.8	49.57
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	53.8	49.57
As receive	US06	Tier 2 Cert N	Power	A	L	Electric (48	53.8	49.57
As receive	HWFE	Tier 2 Cert N	Power	A	L	Electric (48	53.8	49.57
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	53.8	49.57
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	53.8	49.57
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	53.8	49.57
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	53.8	49.57
As receive	US06	Tier 2 Cert N	Power	A	L	Electric (48	53.8	49.57
As receive	US06	Tier 2 Cert N	Power	A	L	Electric (48	53.8	49.57
As receive	HWFE	Tier 2 Cert N	Power	A	L	Electric (48	53.8	49.57
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	53.8	49.57
As receive	US06	Tier 2 Cert N	Power	A	L	Electric (48	53.8	49.57
As receive	HWFE	Tier 2 Cert N	Power	A	L	Electric (48	53.8	49.57

itted it as Low Mileage with low Mileage Standards, which are passed.

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itted it as Low Mileage with Low Mileage Standards, which are passed.							
itted it as Low Mileage with Low Mileage Standards, which are passed.							
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	US06	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	US06	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	US06	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	US06	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	US06	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (4	42.3	53.99
As receive	US06	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	US06	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	US06	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	US06	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	US06	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	HWFE	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	Federal fu	Tier 2 Cert N	Not applic	M	L	Electric (4	44.1	70
As receive	US06	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88

As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	US06	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	US06	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	US06	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	HWFE	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	Federal fu	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	US06	Tier 2 Cert N	Power	A	L	4WD Elect	54.2	70.88
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	US06	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	HWFE	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	US06	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	HWFE	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	US06	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	HWFE	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	HWFE	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	HWFE	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	US06	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	US06	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	HWFE	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89
As receive	Federal fu	Tier 2 Cert N	Power	A	L	Electric (48	54.1	56.89

DynaCoeff B	DynaCoeff C	Dyna TargetCoeff A	Dyna TargetCoeff B	Dyna TargetCoeff C	Test Info Comment	EPA CalcFed Pass	EPA CalcCA Pass	Test Result Name	Weighted Result
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	CH4 - Metl	0.004
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Non-metha	0.018
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Non-metha	0.019
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Nitrogen C	0.005
-	-	-	-	-	-	Pass	Pass	Hydrocarb	0.003
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Non-metha	0.004
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Formaldeh	0.001
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	SFTP Comp	0.041
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Nitrogen C	0.046
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Carbon Mc	1.364
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Manufactu	23.93
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Manufactu	35.11
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Carbon Mc	0.548
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Total Hydr	0.021
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Carbon Mc	0.195
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Manufactu	23.97
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Carbon dic	371.437
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Carbon-Re	319.6
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Non-metha	0.01
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Nitrogen C	0.025
1.2859	0.03205	174	1.29	0.034	-	Pass	Pass	Carbon dic	253.945
-	-	-	-	-	-	Pass	Pass	Total Hydr	0.27
0.7801	0.02915	164	1.23	0.0299	NMHC to N	Pass	Pass	Formaldeh	0
0.7801	0.02915	164	1.23	0.0299	NMHC to N	Pass	Pass	Carbon Mc	0.451
0.7801	0.02915	164	1.23	0.0299	NMHC to N	Pass	Pass	CH4 - Metl	0.003
0.7801	0.02915	164	1.23	0.0299	NMHC to N	Pass	Pass	Non-metha	0.016
0.7801	0.02915	164	1.23	0.0299	-	Pass	Pass	Manufactu	26.32
0.7801	0.02915	164	1.23	0.0299	-	Pass	Pass	SFTP Comp	0.03
0.7801	0.02915	164	1.23	0.0299	NMHC to N	Pass	Pass	Non-metha	0.015
0.7801	0.02915	164	1.23	0.0299	NMHC to N	Pass	Pass	Carbon dic	359.044
0.7801	0.02915	164	1.23	0.0299	NMHC to N	Pass	Pass	Manufactu	24.766
0.7801	0.02915	164	1.23	0.0299	-	Pass	Pass	Nitrogen C	0.005
0.7801	0.02915	164	1.23	0.0299	-	Pass	Pass	Carbon Mc	0.437
0.7801	0.02915	164	1.23	0.0299	-	Pass	Pass	Non-metha	0.004
0.7801	0.02915	164	1.23	0.0299	NMHC to N	Pass	Pass	Total Hydr	0.018
0.7801	0.02915	164	1.23	0.0299	-	Pass	Pass	Manufactu	40.789
0.7801	0.02915	164	1.23	0.0299	-	Pass	Pass	Carbon-Re	296.2
0.7801	0.02915	164	1.23	0.0299	NMHC to N	Pass	Pass	Nitrogen C	0.016
0.7801	0.02915	164	1.23	0.0299	-	Pass	Pass	Non-metha	0.011
0.7801	0.02915	164	1.23	0.0299	-	Pass	Pass	Nitrogen C	0.019
0.7801	0.02915	164	1.23	0.0299	-	Pass	Pass	Carbon dic	218.246

0.7801	0.02915	164	1.23	0.0299	-	Pass	Pass	Carbon Mc	0.129
-	-	-	-	-	-	Pass	Pass	Hydrocarb	0.024
0.0312	0.0377	225	0.51	0.0399	Start / Sto	Pass	Pass	CH4 - Metl	0.006
0.0312	0.0377	225	0.51	0.0399	Start / Sto	Pass	Pass	Non-metha	0.017
0.0312	0.0377	225	0.51	0.0399	-	Pass	Pass	Nitrogen C	0.045
0.0312	0.0377	225	0.51	0.0399	-	Pass	Pass	Manufactu	32.953
0.0312	0.0377	225	0.51	0.0399	Start / Sto	Pass	Pass	Formaldeh	0
0.0312	0.0377	225	0.51	0.0399	Start / STo	Pass	Pass	Nitrogen C	0.028
0.0312	0.0377	225	0.51	0.0399	Start / STo	Pass	Pass	Carbon dic	420.337
0.0312	0.0377	225	0.51	0.0399	Start / STo	Pass	Pass	Manufactu	21.186
0.0312	0.0377	225	0.51	0.0399	-	Pass	Pass	Manufactu	21.934
0.0312	0.0377	225	0.51	0.0399	-	Pass	Pass	SFTP Comp	0.056
0.0312	0.0377	225	0.51	0.0399	-	Pass	Pass	Non-metha	0.014
0.0312	0.0377	225	0.51	0.0399	Start / STo	Pass	Pass	Formaldeh	0
0.0312	0.0377	225	0.51	0.0399	-	Pass	Pass	Non-metha	0.039
0.0312	0.0377	225	0.51	0.0399	-	Pass	Pass	Carbon-Re	361.7
0.0312	0.0377	225	0.51	0.0399	Start / STo	Pass	Pass	Carbon Mc	0.569
-	-	-	-	-	-	Pass	Pass	Total Hydr	0.321
0.0312	0.0377	225	0.51	0.0399	Start / Sto	Pass	Pass	Nitrogen C	0.034
0.0312	0.0377	225	0.51	0.0399	Start / Sto	Pass	Pass	Manufactu	19.8
0.0312	0.0377	225	0.51	0.0399	Start / STo	Pass	Pass	Non-metha	0.014
0.0312	0.0377	225	0.51	0.0399	-	Pass	Pass	Carbon Mc	2.308
0.0312	0.0377	225	0.51	0.0399	-	Pass	Pass	Carbon dic	269.852
0.0312	0.0377	225	0.51	0.0399	Start / Sto	Pass	Pass	Non-metha	0.016
0.0312	0.0377	225	0.51	0.0399	Start / STo	Pass	Pass	CH4 - Metl	0.005
0.0312	0.0377	225	0.51	0.0399	-	Pass	Pass	Nitrogen C	0.01
0.0312	0.0377	225	0.51	0.0399	Start / Sto	Pass	Pass	Carbon Mc	0.5142
0.0312	0.0377	225	0.51	0.0399	Start / Sto	Pass	Pass	Total Hydr	0.022
0.0312	0.0377	225	0.51	0.0399	Start / Sto	Pass	Pass	Carbon dic	449.7
0.0312	0.0377	225	0.51	0.0399	Start / STo	Pass	Pass	Total Hydr	0.018
0.0312	0.0377	225	0.51	0.0399	Start / STo	Pass	Pass	Non-metha	0.014
0.0312	0.0377	225	0.51	0.0399	-	Pass	Pass	Carbon Mc	0.601
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Nitrogen C	0.047
-	-	-	-	-	-	Pass	Pass	Hydrocarb	0.023
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Total Hydr	0.021
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	CH4 - Metl	0.006
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Nitrogen C	0.009
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Manufactu	35.098
-	-	-	-	-	-	Pass	Pass	Total Hydr	0.278
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Manufactu	22.483
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Non-metha	0.016
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Carbon dic	253.586
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Carbon Mc	0.422
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Carbon Mc	2.283
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Carbon dic	396.081

1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Non-meth	0.016
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Formaldeh	0
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Manufactu	24.768
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Non-meth	0.049
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	SFTP Comp	0.059
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Non-meth	0.012
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Carbon-Re	339.2
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Nitrogen C	0.026
1.0636	0.02777	159	1.19	0.03	-	Pass	Pass	Carbon Mc	0.405
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	Nitrogen C	0.024
0.7563	0.02559	182	0.7	0.0302	-	Pass	Pass	Non-meth	0.025
0.7563	0.02559	182	0.7	0.0302	-	Pass	Pass	Nitrogen C	0.029
0.7563	0.02559	182	0.7	0.0302	-	Pass	Pass	Nitrogen C	0.009
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	Non-meth	0.018
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	CH4 - Met	0.005
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	Carbon dic	400.596
0.7563	0.02559	182	0.7	0.0302	-	Pass	Pass	SFTP Comp	0.047
0.7563	0.02559	182	0.7	0.0302	-	Pass	Pass	Combined	343.2
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	Manufactu	20.8
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	CH4 - Met	0.004
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	Formaldeh	0
0.7563	0.02559	182	0.7	0.0302	-	Pass	Pass	Manufactu	34.887
0.7563	0.02559	182	0.7	0.0302	-	Pass	Pass	Carbon dic	254.709
-	-	-	-	-	-	Pass	Pass	Hydrocarb	0.041
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	Nitrogen C	0.026
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	Non-meth	0.013
0.7563	0.02559	182	0.7	0.0302	-	Pass	Pass	Carbon Mc	0.571
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	Carbon Mc	0.397
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	Non-meth	0.013
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	Carbon Mc	0.371
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	Manufactu	22.234
0.7563	0.02559	182	0.7	0.0302	-	Pass	Pass	Non-meth	0.029
0.7563	0.02559	182	0.7	0.0302	-	Pass	Pass	Carbon Mc	1.101
-	-	-	-	-	-	Pass	Pass	Total Hydr	0.258
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	Total Hydr	0.016
0.7563	0.02559	182	0.7	0.0302	-	Pass	Pass	Manufactu	23.691
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	Non-meth	0.018
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	Formaldeh	0.001
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	Total Hydr	0.022
0.7563	0.02559	182	0.7	0.0302	Start / Sto	Pass	Pass	Carbon dic	427.5
-0.665	0.04997	193	0.34	0.048	-	Pass	Pass	Total Hydr	0.043
-0.665	0.04997	193	0.34	0.048	-	Pass	Pass	Nitrogen C	0.109
-0.665	0.04997	193	0.34	0.048	-	Pass	Pass	Carbon Mc	0
-0.665	0.04997	193	0.34	0.048	-	Pass	Pass	Nitrogen C	0.025
-0.665	0.04997	193	0.34	0.048	-	Pass	Pass	Nitrogen C	0.034

-0.665	0.04997	193	0.34	0.048-	Pass	Pass	Non-meth	0
-0.665	0.04997	193	0.34	0.048-	Pass	Pass	Carbon dic	245.499
-0.665	0.04997	193	0.34	0.048-	Pass	Pass	Non-meth	0.011
-0.665	0.04997	193	0.34	0.048-	Pass	Pass	Carbon dic	417.677
-0.665	0.04997	193	0.34	0.048-	Pass	Pass	SFTP Comp	0.132
-0.665	0.04997	193	0.34	0.048-	Pass	Pass	Carbon Mc	0.001
-0.665	0.04997	193	0.34	0.048-	Pass	Pass	Non-meth	0
-0.665	0.04997	193	0.34	0.048-	Pass	Pass	Carbon Mc	0.119
-0.665	0.04997	193	0.34	0.048-	Pass	Pass	Combined	340.4
-0.665	0.04997	193	0.34	0.048-	Pass	Pass	Manufactu	24.343
-0.665	0.04997	193	0.34	0.048-	Pass	Pass	Non-meth	0.011
-0.665	0.04997	193	0.34	0.048-	Pass	Pass	Particulate	0.001
-0.665	0.04997	193	0.34	0.048-	Pass	Pass	CH4 - Met	0.037
-0.665	0.04997	193	0.34	0.048-	Pass	Pass	Manufactu	26.741
-0.665	0.04997	193	0.34	0.048-	Pass	Pass	Manufactu	41.445
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Non-meth	0.024
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Manufactu	23.29
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Nitrogen C	0.045
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Nitrogen C	0.009
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Combined	351.3
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Manufactu	26.52
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Carbon dic	246.586
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Total Hydr	0.059
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Carbon Mc	0.31
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Carbon dic	436.234
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	CH4 - Met	0.04
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Particulate	0
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Formaldeh	0
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Non-meth	0.001
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Non-meth	0.024
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Carbon Mc	0.009
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Non-meth	0.001
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Nitrogen C	0.081
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Carbon Mc	0.007
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	Manufactu	41.26
-0.5548	0.04817	193	0.34	0.048-	Pass	Pass	SFTP Comp	0.133
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Nitrogen C	0.04
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	SFTP Comp	0.002
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Manufactu	36.075
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Carbon Mc	0.253
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Particulate	0.001
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Total Hydr	0.051
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Non-meth	0.001
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	SFTP Comp	0.188
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Nitrogen C	0.059

0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Manufactu	21.675
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Non-methɑ	0.018
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Nitrogen C	0.197
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Combined	385.1
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Non-methɑ	0.018
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Manufactu	23.993
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Carbon Mc	0.091
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Carbon Mc	0.003
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Non-methɑ	0
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Carbon dic	468.897
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Carbon dic	282.047
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	Formaldeh	0
0.3317	0.04658	200	1.2	0.0467-	Pass	Pass	CH4 - Metł	0.038
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Carbon Mc	0.005
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Combined	366.2
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	SFTP Comp	0.144
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Non-methɑ	0
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Total Hydr	0.046
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Carbon Mc	0.094
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Non-methɑ	0
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Carbon Mc	0.263
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Formaldeh	0
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Carbon dic	448.179
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	CH4 - Metł	0.038
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Manufactu	22.68
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Manufactu	26.83
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Manufactu	38.36
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Non-methɑ	0.013
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Nitrogen C	0.063
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Non-methɑ	0.013
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Carbon dic	265.249
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Nitrogen C	0.022
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Nitrogen C	0.028
0.0819	0.0472	200	1.2	0.0467-	Pass	Pass	Particulate	0
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Non-methɑ	0.036
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Carbon Mc	5.779
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Carbon dic	468.171
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Carbon Mc	0.849
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Non-methɑ	0.085
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Manufactu	18.7
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Manufactu	19.01
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	SFTP Comp	0.234
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Manufactu	29.2
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	CH4 - Metł	0.008
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Nitrogen C	0.036

0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Formaldeh	0.001
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Non-meth	0.02
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Combined	395.9
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Non-meth	0.037
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Total Hydr	0.042
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Nitrogen C	0.144
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Carbon Mc	1.477
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Carbon dic	303.312
0.4001	0.04772	196	1.2	0.0467-	Pass	Pass	Nitrogen C	0.028
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Carbon dic	486.501
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Total Hydr	0.029
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Non-meth	0.025
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Nitrogen C	0.036
-	-	-	-	-	Pass	Pass	Total Hydr	0.677
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Carbon Mc	5.503
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	SFTP Comp	0.218
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Nitrogen C	0.031
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Carbon dic	311.956
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Non-meth	0.026
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Non-meth	0.092
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Carbon Mc	1.836
-	-	-	-	-	Pass	Pass	Hydrocarb	0.009
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Formaldeh	0.001
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Nitrogen C	0.1
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Non-meth	0.028
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	CH4 - Met	0.005
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Carbon Mc	0.54
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Manufactu	18.9
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Manufactu	28.34
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Manufactu	18.31
0.5682	0.04691	191	1.2	0.0467-	Pass	Pass	Carbon-Re	412.1
0.3273	0.03472	144	0.74	0.0343-	Pass	Pass	Nitrogen C	0.007
0.3273	0.03472	144	0.74	0.0343-	Pass	Pass	Total Hydr	0.013
0.3273	0.03472	144	0.74	0.0343-	Pass	Pass	Manufactu	27.4
0.3273	0.03472	144	0.74	0.0343-	Pass	Pass	Carbon-Re	277.1
-	-	-	-	-	Pass	Pass	Total Hydr	0.232
0.3273	0.03472	144	0.74	0.0343-	Pass	Pass	Non-meth	0.01
0.3273	0.03472	144	0.74	0.0343-	Pass	Pass	Nitrogen C	0.044
0.3273	0.03472	144	0.74	0.0343-	Pass	Pass	Carbon dic	316.382
0.3273	0.03472	144	0.74	0.0343-	Pass	Pass	CH4 - Met	0.004
0.3273	0.03472	144	0.74	0.0343-	Pass	Pass	Non-meth	0.004
0.3273	0.03472	144	0.74	0.0343-	Pass	Pass	Manufactu	28.1
0.3273	0.03472	144	0.74	0.0343-	Pass	Pass	Formaldeh	0
0.3273	0.03472	144	0.74	0.0343-	Pass	Pass	SFTP Comp	0.024
0.3273	0.03472	144	0.74	0.0343-	Pass	Pass	Non-meth	0.002

0.3273	0.03472	144	0.74	0.0343	-	Pass	Pass	Manufactu	39.1
0.3273	0.03472	144	0.74	0.0343	-	Pass	Pass	Carbon Mc	0.347
0.3273	0.03472	144	0.74	0.0343	-	Pass	Pass	Non-metha	0.01
0.3273	0.03472	144	0.74	0.0343	-	Pass	Pass	Carbon Mc	0.44
0.3273	0.03472	144	0.74	0.0343	-	Pass	Pass	Carbon Mc	0.681
0.3273	0.03472	144	0.74	0.0343	-	Pass	Pass	Carbon dic	227.642
0.3273	0.03472	144	0.74	0.0343	-	Pass	Pass	Nitrogen C	0.022
-	-	-	-	-	-	Pass	Pass	Hydrocarb	0.025
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Nitrogen C	0.007
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Non-metha	0.005
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Non-metha	0.005
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Total Hydr	0.008
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Manufactu	28.452
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Non-metha	0
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Formaldeh	0
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Non-metha	0.01
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Carbon-Re	257.1
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Manufactu	29.751
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Manufactu	43.63
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Carbon Mc	0.299
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	SFTP Comp	0.027
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Nitrogen C	0.001
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Carbon Mc	0.119
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Carbon dic	299.516
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	CH4 - Metl	0.003
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Carbon Mc	3.182
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Nitrogen C	0.055
0.1742	0.02938	127	0.568	0.0288	-	Pass	Pass	Carbon dic	204.384
0.0975	0.03113	152	0.98	0.0305	-	Pass	Pass	Manufactu	29.41
0.0975	0.03113	152	0.98	0.0305	-	Pass	Pass	Total Hydr	0.037
0.0975	0.03113	152	0.98	0.0305	-	Pass	Pass	Nitrogen C	0.016
0.0975	0.03113	152	0.98	0.0305	-	Pass	Pass	CH4 - Metl	0.009
0.0975	0.03113	152	0.98	0.0305	-	Pass	Pass	Non-metha	0.03
0.0975	0.03113	152	0.98	0.0305	-	Pass	Pass	Carbon Mc	0.308
0.0975	0.03113	152	0.98	0.0305	-	Pass	Pass	Formaldeh	0.001
0.0975	0.03113	152	0.98	0.0305	-	Pass	Pass	Carbon Mc	0.82
0.0975	0.03113	152	0.98	0.0305	-	Pass	Pass	Nitrogen C	0.019
0.163	0.03091	152	0.98	0.0305	-	Pass	Pass	Nitrogen C	0.003
0.0975	0.03113	152	0.98	0.0305	-	Pass	Pass	Non-metha	0.008
0.163	0.03091	152	0.98	0.0305	-	Pass	Pass	Carbon dic	228.08
0.163	0.03091	152	0.98	0.0305	-	Pass	Pass	Combined	269.8
0.0975	0.03113	152	0.98	0.0305	-	Pass	Pass	Manufactu	30.06
0.163	0.03091	152	0.98	0.0305	-	Pass	Pass	Carbon Mc	0.249
0.163	0.03091	152	0.98	0.0305	-	Pass	Pass	Non-metha	0.005
0.0975	0.03113	152	0.98	0.0305	-	Pass	Pass	Non-metha	0.029

0.163	0.03091	152	0.98	0.0305-	Pass	Pass	Manufactu	39.069
0.0975	0.03113	152	0.98	0.0305-	Pass	Pass	Carbon dic	302.181
0.0975	0.03113	152	0.98	0.0305-	Pass	Pass	SFTP Comp	0.026
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Non-metha	0.03
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Manufactu	30.32
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	CH4 - Meth	0.008
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Nitrogen C	0.01
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Carbon dic	293.28
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Total Hydr	0.037
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Formaldeh	0.001
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Carbon Mo	0.457
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	SFTP Comp	0.024
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Non-metha	0.009
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Nitrogen C	0.017
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Non-metha	0.002
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Carbon Mo	0.66
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Nitrogen C	0.002
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Non-metha	0.032
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Manufactu	29.767
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Combined	255.8
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Carbon dic	208.16
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Manufactu	42.807
0.1607	0.02818	127	0.568	0.0288-	Pass	Pass	Carbon Mo	0.237
1.506	0.03077	174	1.29	0.034-	Pass	Pass	Formaldeh	0.001
1.506	0.03077	174	1.29	0.034-	Pass	Pass	Carbon Mo	0.741
1.506	0.03077	174	1.29	0.034-	Pass	Pass	Non-metha	0.031
1.6061	0.02974	174	1.29	0.034-	Pass	Pass	Carbon Mo	1.389
1.6061	0.02974	174	1.29	0.034-	Pass	Pass	Carbon-Re	331.1
1.6061	0.02974	174	1.29	0.034-	Pass	Pass	SFTP Comp	0.048
1.506	0.03077	174	1.29	0.034-	Pass	Pass	CH4 - Meth	0.006
1.6061	0.02974	174	1.29	0.034-	Pass	Pass	Manufactu	32.6
1.6061	0.02974	174	1.29	0.034-	Pass	Pass	Nitrogen C	0.007
1.506	0.03077	174	1.29	0.034-	Pass	Pass	Manufactu	23.599
1.506	0.03077	174	1.29	0.034-	Pass	Pass	Nitrogen C	0.031
1.6061	0.02974	174	1.29	0.034-	Pass	Pass	Manufactu	22.7
1.6061	0.02974	174	1.29	0.034-	Pass	Pass	Nitrogen C	0.049
1.6061	0.02974	174	1.29	0.034-	Pass	Pass	Carbon dic	273.062
1.6061	0.02974	174	1.29	0.034-	Pass	Pass	Non-metha	0.006
-	-	-	-	-	Pass	Pass	Hydrocarb	0.006
-	-	-	-	-	Pass	Pass	Total Hydr	0.344
1.506	0.03077	174	1.29	0.034-	Pass	Pass	Carbon dic	376.938
1.506	0.03077	174	1.29	0.034-	Pass	Pass	Non-metha	0.032
1.506	0.03077	174	1.29	0.034-	Pass	Pass	Total Hydr	0.036
1.6061	0.02974	174	1.29	0.034-	Pass	Pass	Non-metha	0.013
1.6061	0.02974	174	1.29	0.034-	Pass	Pass	Carbon Mo	0.215

1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Manufactu	24.342
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Nitrogen C	0.023
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Non-metha	0.01
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Carbon Mc	0.247
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Nitrogen C	0.022
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Manufactu	25.723
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	SFTP Comp	0.038
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Nitrogen C	0.014
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Carbon-Re	301.8
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	CH4 - Metl	0.005
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Total Hydr	0.033
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Carbon dic	365.528
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Carbon Mc	0.538
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Manufactu	40.043
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Carbon dic	222.356
-	-	-	-	-	Pass	Pass	Total Hydr	0.181
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Formaldeh	0.001
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Non-metha	0.03
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Non-metha	0.029
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Non-metha	0.017
1.0393	0.02803	153	1.19	0.03-	Pass	Pass	Carbon Mc	1.758
-	-	-	-	-	Pass	Pass	Hydrocarb	0.023
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Manufactu	18.248
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Nitrogen C	0.018
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Carbon dic	488.464
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Manufactu	31.53
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Formaldeh	0
-	-	-	-	-	Pass	Pass	Hydrocarb	0.007
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Carbon Mc	0.436
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	SFTP Comp	0.032
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	CH4 - Metl	0.007
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Non-metha	0.016
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Manufactu	20.901
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Non-metha	0.021
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Non-metha	0.017
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Total Hydr	0.022
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Non-metha	0.023
-	-	-	-	-	Pass	Pass	Total Hydr	0.352
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Nitrogen C	0.004
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Carbon Mc	0.858
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Carbon dic	282.361
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Nitrogen C	0.018
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Carbon Mc	0.431
-0.4245	0.03399	232	0.135	0.0367-	Pass	Pass	Combined	400.6
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Carbon Mc	0.364

0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Non-meth	0.016
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Carbon dic	291.016
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Carbon dic	490.995
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Carbon Mc	0.342
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Nitrogen C	0.007
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Manufactu	22.37
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	CH4 - Met	0.006
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Non-meth	0.017
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Total Hydr	0.022
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Combined	409.4
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Nitrogen C	0.025
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Manufactu	18.16
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Non-meth	0.017
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Nitrogen C	0.011
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	SFTP Comp	0.03
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Formaldeh	0.001
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Carbon Mc	0.328
-	-	-	-	-	Pass	Pass	Hydrocarb	0.029
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Manufactu	30.61
0.5731	0.02715	211	1.1	0.0282-	Pass	Pass	Non-meth	0.016
-	-	-	-	-	Pass	Pass	Total Hydr	0.301
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Total Hydr	0.032
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Manufactu	29.957
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Non-meth	0.028
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Carbon Mc	2.011
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Non-meth	0.013
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Carbon-Re	275.8
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Nitrogen C	0.001
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Nitrogen C	0.012
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Non-meth	0.029
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	CH4 - Met	0.005
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Formaldeh	0.001
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Carbon Mc	0.119
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Manufactu	43.909
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Carbon Mc	0.539
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Nitrogen C	0.057
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	SFTP Comp	0.046
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Carbon dic	203.085
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Non-meth	0.001
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Manufactu	26.636
-0.1424	0.03372	134	0.54	0.0319-	Pass	Pass	Carbon dic	334.153
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	CH4 - Met	0.004
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	SFTP Comp	0.03
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Total Hydr	0.023
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Nitrogen C	0.017

0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Formaldeh	0.001
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Carbon dic	263.862
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Carbon Mc	2.838
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Nitrogen C	0.009
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Non-metha	0.011
-	-	-	-	-	Pass	Pass	Total Hydr	0.238
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Carbon Mc	0.455
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Non-metha	0.02
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Non-metha	0.019
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Non-metha	0.008
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Nitrogen C	0.006
-	-	-	-	-	Pass	Pass	Hydrocarb	0.02
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Carbon dic	353.592
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Manufactu	25.187
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Manufactu	33.792
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Carbon Mc	0.143
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Manufactu	23.368
0.7196	0.04098	178	1.4	0.0375-	Pass	Pass	Carbon-Re	313.8
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Total Hydr	0.024
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Carbon dic	329.832
-	-	-	-	-	Pass	Pass	Total Hydr	0.248
-	-	-	-	-	Pass	Pass	Hydrocarb	0.056
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Non-metha	0.021
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Nitrogen C	0.012
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Nitrogen C	0.049
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Non-metha	0.005
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Manufactu	27
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	SFTP Comp	0.041
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Non-metha	0.02
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Manufactu	28.67
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Manufactu	41.15
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Nitrogen C	0.007
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Carbon dic	216.685
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Non-metha	0.011
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	CH4 - Meth	0.004
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Carbon Mc	1.311
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Combined	282
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Carbon Mc	0.451
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Formaldeh	0.001
0.2838	0.02864	161	0.8	0.0283-	Pass	Pass	Carbon Mc	0.164
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Formaldeh	0.001
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Non-metha	0.032
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Total Hydr	0.034
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	SFTP Comp	0.033
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Manufactu	20.37

-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Non-meth	0.022
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Carbon dic	283.269
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Manufactu	31.5
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Carbon dic	441.357
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Carbon-Re	370.7
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Nitrogen C	0.023
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Carbon Mc	0.432
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Manufactu	20.19
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Carbon Mc	2.512
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Nitrogen C	0.011
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Non-meth	0.002
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Nitrogen C	0.005
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Non-meth	0.031
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	CH4 - Met	0.004
-0.21	0.0464	193	0.34	0.048-	Pass	Pass	Carbon Mc	0.066
0.207	0.04686	193	0.34	0.048-	Pass	Pass	Manufactu	20.529
0.207	0.04686	193	0.34	0.048-	Pass	Pass	Non-meth	0.033
0.155	0.04642	193	0.34	0.048-	Pass	Pass	Carbon Mc	0.254
-	-	-	-	-	Pass	Pass	Total Hydr	0.485
0.207	0.04686	193	0.34	0.048-	Pass	Pass	Total Hydr	0.036
0.207	0.04686	193	0.34	0.048-	Pass	Pass	Carbon dic	434.055
0.155	0.04642	193	0.34	0.048-	Pass	Pass	Manufactu	20.352
0.155	0.04642	193	0.34	0.048-	Pass	Pass	Nitrogen C	0.008
0.207	0.04686	193	0.34	0.048-	Pass	Pass	CH4 - Met	0.004
0.207	0.04686	193	0.34	0.048-	Pass	Pass	Nitrogen C	0.025
0.155	0.04642	193	0.34	0.048-	Pass	Pass	Non-meth	0.028
0.155	0.04642	193	0.34	0.048-	Pass	Pass	Manufactu	30.028
0.155	0.04642	193	0.34	0.048-	Pass	Pass	SFTP Com	0.039
0.155	0.04642	193	0.34	0.048-	Pass	Pass	Carbon-Re	372.9
0.207	0.04686	193	0.34	0.048-	Pass	Pass	Formaldeh	0.001
0.155	0.04642	193	0.34	0.048-	Pass	Pass	Carbon Mc	4.621
0.155	0.04642	193	0.34	0.048-	Pass	Pass	Carbon dic	296.813
0.207	0.04686	193	0.34	0.048-	Pass	Pass	Non-meth	0.032
0.155	0.04642	193	0.34	0.048-	Pass	Pass	Nitrogen C	0.022
0.155	0.04642	193	0.34	0.048-	Pass	Pass	Non-meth	0.007
0.207	0.04686	193	0.34	0.048-	Pass	Pass	Carbon Mc	0.395
-	-	-	-	-	Pass	Pass	Hydrocarb	0.039
0.1206	0.02629	124	0.15	0.0278-	Pass	Pass	Carbon-Re	149.5
0.1206	0.02629	124	0.15	0.0278-	Pass	Pass	Nitrogen C	0.019
0.1206	0.02629	124	0.15	0.0278-	Pass	Pass	Non-meth	0.006
0.1206	0.02629	124	0.15	0.0278-	Pass	Pass	Carbon dic	143.632
0.1206	0.02629	124	0.15	0.0278-	Pass	Pass	Non-meth	0.001
0.1206	0.02629	124	0.15	0.0278-	Pass	Pass	Manufactu	43.013
0.1206	0.02629	124	0.15	0.0278-	Pass	Pass	Integrated	0.338
0.1206	0.02629	124	0.15	0.0278-	Pass	Pass	Carbon dic	153.9

0.1206	0.02629	124	0.15	0.0278	-	Pass	Pass	SFTP Comp	0.01
0.1206	0.02629	124	0.15	0.0278	-	Pass	Pass	Nitrogen C	0.004
0.1206	0.02629	124	0.15	0.0278	-	Pass	Pass	Formaldeh	0
0.1206	0.02629	124	0.15	0.0278	-	Pass	Pass	Nitrogen C	0
0.1206	0.02629	124	0.15	0.0278	-	Pass	Pass	Integrated	0.103
0.1206	0.02629	124	0.15	0.0278	-	Pass	Pass	Manufactu	57.9
0.1206	0.02629	124	0.15	0.0278	-	Pass	Pass	Non-metha	0.005
0.1206	0.02629	124	0.15	0.0278	-	Pass	Pass	Carbon Mc	0.157
0.1206	0.02629	124	0.15	0.0278	-	Pass	Pass	Integrated	0.0406
0.1206	0.02629	124	0.15	0.0278	-	Pass	Pass	Non-metha	0.001
0.1206	0.02629	124	0.15	0.0278	-	Pass	Pass	Total Hydr	0.008
0.1206	0.02629	124	0.15	0.0278	-	Pass	Pass	Carbon Mc	0.038
0.1206	0.02629	124	0.15	0.0278	-	Pass	Pass	CH4 - Metl	0.002
0.1206	0.02629	124	0.15	0.0278	-	Pass	Pass	Manufactu	62.056
0.1206	0.02629	124	0.15	0.0278	-	Pass	Pass	Carbon Mc	0.076
0.1092	0.02611	124	0.15	0.0278	Hioki meas	Pass	Pass	Non-metha	0.005
0.1092	0.02611	124	0.15	0.0278	-	Pass	Pass	Manufactu	43.6
-	-	-	-	-	-	Pass	Pass	Hydrocarb	0.056
0.1092	0.02611	124	0.15	0.0278	Hioki meas	Pass	Pass	Carbon Mc	0.117
0.1092	0.02611	124	0.15	0.0278	-	Pass	Pass	Manufactu	64.1
0.1092	0.02611	124	0.15	0.0278	-	Pass	Pass	Carbon dic	139.018
0.1092	0.02611	124	0.15	0.0278	Hioki meas	Pass	Pass	Carbon dic	154
0.1092	0.02611	124	0.15	0.0278	-	Pass	Pass	Carbon Mc	0.022
0.1092	0.02611	124	0.15	0.0278	-	Pass	Pass	Carbon-Re	147.4
0.1092	0.02611	124	0.15	0.0278	-	Pass	Pass	Carbon Mc	0.094
0.1092	0.02611	124	0.15	0.0278	-	Pass	Pass	Integrated	0.103
0.1092	0.02611	124	0.15	0.0278	-	Pass	Pass	Non-metha	0.001
0.1092	0.02611	124	0.15	0.0278	-	Pass	Pass	Non-metha	0.001
0.1092	0.02611	124	0.15	0.0278	Hioki meas	Pass	Pass	Manufactu	57.9
0.1092	0.02611	124	0.15	0.0278	Hioki meas	Pass	Pass	Total Hydr	0.007
0.1092	0.02611	124	0.15	0.0278	-	Pass	Pass	Nitrogen C	0.012
0.1092	0.02611	124	0.15	0.0278	-	Pass	Pass	Nitrogen C	0
0.1092	0.02611	124	0.15	0.0278	-	Pass	Pass	Integrated	0.134
-	-	-	-	-	-	Pass	Pass	Total Hydr	0.213
0.1092	0.02611	124	0.15	0.0278	Hioki meas	Pass	Pass	CH4 - Metl	0.002
0.1092	0.02611	124	0.15	0.0278	Hioki meas	Pass	Pass	Nitrogen C	0.004
0.1092	0.02611	124	0.15	0.0278	-	Pass	Pass	SFTP Comp	0.008
0.1092	0.02611	124	0.15	0.0278	Hioki meas	Pass	Pass	Formaldeh	0
0.1092	0.02611	124	0.15	0.0278	Hioki meas	Pass	Pass	Non-metha	0.005
0.1092	0.02611	124	0.15	0.0278	Hioki meas	Pass	Pass	Integrated	0.064
0.5366	0.03603	148	0.8	0.0367	-	Pass	Pass	CH4 - Metl	0.002
0.5366	0.03603	148	0.8	0.0367	-	Pass	Pass	Manufactu	26.73
0.5366	0.03603	148	0.8	0.0367	-	Pass	Pass	Carbon Mc	0.232
-	-	-	-	-	-	Pass	Pass	Total Hydr	0.237
0.5366	0.03603	148	0.8	0.0367	-	Pass	Pass	Total Hydr	0.006

0.5366	0.03603	148	0.8	0.0367-	Pass	Pass	Non-meth	0
-	-	-	-	-	Pass	Pass	Hydrocarb	0.043
0.5366	0.03603	148	0.8	0.0367-	Pass	Pass	Non-meth	0.004
0.5366	0.03603	148	0.8	0.0367-	Pass	Pass	Nitrogen C	0
0.5366	0.03603	148	0.8	0.0367-	Pass	Pass	Carbon dic	333.619
0.5366	0.03603	148	0.8	0.0367-	Pass	Pass	Nitrogen C	0.004
0.5366	0.03603	148	0.8	0.0367-	Pass	Pass	Nitrogen C	0.04
0.5366	0.03603	148	0.8	0.0367-	Pass	Pass	Carbon Mc	0.086
0.5366	0.03603	148	0.8	0.0367-	Pass	Pass	Carbon Mc	0.888
0.5366	0.03603	148	0.8	0.0367-	Pass	Pass	Non-meth	0.002
0.5366	0.03603	148	0.8	0.0367-	Pass	Pass	Carbon-Re	280.3
0.5366	0.03603	148	0.8	0.0367-	Pass	Pass	Formaldeh	0
0.5366	0.03603	148	0.8	0.0367-	Pass	Pass	Non-meth	0.004
0.5366	0.03603	148	0.8	0.0367-	Pass	Pass	SFTP Comp	0.027
0.5366	0.03603	148	0.8	0.0367-	Pass	Pass	Carbon dic	220.149
0.5366	0.03603	148	0.8	0.0367-	Pass	Pass	Manufactu	27.5
0.5366	0.03603	148	0.8	0.0367-	Pass	Pass	Manufactu	40.53
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Carbon Mc	0.277
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Total Hydr	0.006
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Nitrogen C	0.006
-	-	-	-	-	Pass	Pass	Total Hydr	0.229
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Nitrogen C	0.031
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	SFTP Comp	0.025
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Carbon Mc	0.323
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Nitrogen C	0
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Carbon dic	324.288
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Non-meth	0.004
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Non-meth	0.003
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Carbon-Re	276.4
-	-	-	-	-	Pass	Pass	Hydrocarb	0.031
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Carbon dic	208.556
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Manufactu	27.49
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Formaldeh	0
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Non-meth	0.001
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Carbon Mc	0.075
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	CH4 - Met	0.002
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Non-meth	0.004
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Manufactu	29.26
0.429	0.0284	161	0.8	0.0283-	Pass	Pass	Manufactu	42.78
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Manufactu	26.097
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Nitrogen C	0.015
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	CH4 - Met	0.002
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Carbon Mc	1.892
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	SFTP Comp	0.033
-	-	-	-	-	Pass	Pass	Total Hydr	0.322

0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Manufactu	38.629
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Carbon dic	341.708
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Non-metha	0.004
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Combined	289
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Carbon dic	230.979
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Formaldeh	0
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Manufactu	26.66
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Nitrogen C	0.002
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Carbon Mc	0.076
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Non-metha	0.008
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Carbon Mc	0.217
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Total Hydr	0.01
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Non-metha	0.008
-	-	-	-	-	Pass	Pass	Hydrocarb	0.014
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Nitrogen C	0.04
0.092	0.0351	182	0.46	0.0351-	Pass	Pass	Non-metha	0.001
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Nitrogen C	0.005
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Formaldeh	0
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Non-metha	0.004
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Nitrogen C	0.003
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Non-metha	0
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	CH4 - Meth	0.002
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Manufactu	26.278
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Carbon Mc	0.342
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Total Hydr	0.006
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	SFTP Comp	0.025
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Manufactu	26.567
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Non-metha	0.01
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Carbon Mc	4.18
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Carbon dic	222.816
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Carbon dic	335.462
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Carbon Mc	0.095
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Non-metha	0.004
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Nitrogen C	0.025
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Manufactu	40.038
0.1382	0.03476	182	0.46	0.0351-	Pass	Pass	Combined	285.1
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Non-metha	0.038
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Total Hydr	0.041
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Nitrogen C	0.002
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Combined	266.4
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Manufactu	29.318
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Manufactu	42.666
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Non-metha	0.004
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Nitrogen C	0.009
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Manufactu	28.08

1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Non-meth	0.036
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Carbon dic	313.917
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Formaldeh	0.001
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	SFTP Comp	0.027
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Carbon Mc	0.044
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Carbon Mc	0.505
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Non-meth	0.014
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Nitrogen C	0.003
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Carbon dic	207.118
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	CH4 - Met	0.005
1.1749	0.02286	124	1.4	0.0225-	Pass	Pass	Carbon Mc	2.44
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	CH4 - Met	0.004
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Non-meth	0.036
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Non-meth	0.037
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Manufactu	29.187
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Manufactu	42.712
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Non-meth	0.005
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Total Hydr	0.039
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Nitrogen C	0.006
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Carbon Mc	0.433
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Carbon dic	318.272
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Formaldeh	0.001
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Carbon Mc	1.422
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Non-meth	0.016
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	SFTP Comp	0.026
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Carbon dic	208.685
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Manufactu	27.958
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Nitrogen C	0.003
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Carbon Mc	0.092
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Combined	269.5
1.613	0.02029	124	1.4	0.0225-	Pass	Pass	Nitrogen C	0.002
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Total Hydr	0.025
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Formaldeh	0
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Non-meth	0.013
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	SFTP Comp	0.052
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Nitrogen C	0.112
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Non-meth	0.001
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Carbon Mc	0.002
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Manufactu	58.3
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Carbon dic	174.512
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	CH4 - Met	0.015
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Non-meth	0.013
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Non-meth	0.001
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Carbon Mc	0.006
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Combined	224.6

0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Particulate	0.001
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Manufactu	38.53
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Carbon Mc	0.151
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Carbon dic	265.301
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Manufactu	38.31
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Nitrogen C	0.033
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	SFTP Comp	0.001
0.2708	0.0282	140	0.8	0.0275-	Pass	Pass	Nitrogen C	0.066
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Formaldeh	0
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Nitrogen C	0.957
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Manufactu	31.7
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	SFTP Comp	0.0264
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Carbon dic	173.724
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	CH4 - Metl	0.013
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Non-metha	0.012
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Carbon Mc	0.172
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Total Hydr	0.024
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	SFTP Comp	0.295
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Combined	220.9
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Non-metha	0.012
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Carbon Mc	0.002
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Nitrogen C	0.041
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Particulate	0.001
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Non-metha	0.01
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Manufactu	39.219
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Nitrogen C	0.046
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Manufactu	58.569
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Carbon dic	259.106
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Carbon Mc	0.062
0.2948	0.02736	140	0.8	0.0275-	Pass	Pass	Non-metha	0
0.0354	0.01726	33	0.29	0.0166	LAB MFR:V	Pass	Not Applic Drive Trace	99.99
0.0354	0.01726	33	0.29	0.0166	LAB MFR:V	Pass	Not Applic Particulate	0.00021
0.0354	0.01726	33	0.29	0.0166	LAB MFR:V	Pass	Not Applic Drive Trace	99.99
0.0354	0.01726	33	0.29	0.0166	LAB MFR:V	Pass	Not Applic Non-metha	0
0.0354	0.01726	33	0.29	0.0166	LAB MFR:V	Pass	Not Applic Manufactu	55.12855
0.0354	0.01726	33	0.29	0.0166	LAB MFR:V	Pass	Not Applic Carbon dic	269.42636
0.0354	0.01726	33	0.29	0.0166	LAB MFR:V	Pass	Not Applic Non-metha	0.01448
0.0354	0.01726	33	0.29	0.0166	LAB MFR:V	Pass	Not Applic Non-metha	0
0.0354	0.01726	33	0.29	0.0166	LAB MFR:V	Pass	Not Applic Nitrogen C	0.00041
0.0354	0.01726	33	0.29	0.0166	LAB MFR:V	Pass	Not Applic Carbon Mc	0.02724
0.0354	0.01726	33	0.29	0.0166	LAB MFR:V	Pass	Not Applic Nitrogen C	0.02653
0.0354	0.01726	33	0.29	0.0166	LAB MFR:V	Pass	Not Applic Carbon Mc	0.01065
0.0354	0.01726	33	0.29	0.0166	LAB MFR:V	Pass	Not Applic CH4 - Metl	0.03345
0.0354	0.01726	33	0.29	0.0166	LAB MFR:V	Pass	Not Applic Drive Trace	99.99
0.0354	0.01726	33	0.29	0.0166	LAB MFR:V	Pass	Not Applic Drive Trace	99.99

0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Non-meth	0.00111
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Carbon dic	184.46950
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Drive Trace	99.99
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Nitrogen C	0.06993
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Drive Trace	99.99
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Carbon Mc	0.20102
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Total Hydr	0.07472
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Combined	0
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Particulate	0.00049
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Total Hydr	0.09453
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Drive Trace	99.99
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Non-meth	0.01448
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic CH4 - Metl	0.06482
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Drive Trace	99.99
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Drive Trace	99.99
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Manufactu	35.73867
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic CH4 - Metl	0.10053
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Manufactu	37.75063
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Total Hydr	0.03068
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Non-meth	0.00111
0.0354	0.01726	33	0.29	0.0166	LAB MFR:VPass	Not Applic Carbon dic	284.38598
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Carbon Mc	0.23530
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Drive Trace	99.99
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Particulate	0.00021
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Carbon Mc	0.06057
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Non-meth	0.00017
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic CH4 - Metl	0.07619
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Carbon dic	289.38382
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Nitrogen C	0.03730
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Drive Trace	99.99
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Total Hydr	0.08185
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic CH4 - Metl	0.16318
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Drive Trace	99.99
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Nitrogen C	0.14274
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Carbon dic	183.79792
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Carbon Mc	0.01277
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Manufactu	55.32341
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Drive Trace	99.99
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Non-meth	0.01136
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Drive Trace	99.99
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Drive Trace	99.99
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Manufactu	35.08554
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Non-meth	0.02173
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Combined	0
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Manufactu	38.02207

0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Drive Trace	99.99
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Non-metha	0.00017
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic CH4 - Metl	0.03898
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Total Hydr	0.03639
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Drive Trace	99.99
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Nitrogen C	0.02741
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Carbon dic	267.11910
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Particulate	0.00008
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Total Hydr	0.17337
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Non-metha	0.01136
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Non-metha	0.02173
0.1276	0.01693	33	0.29	0.0166	LAB MFR:VPass	Not Applic Drive Trace	99.99
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Carbon dic	275.37103
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Carbon Mc	0.03917
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Drive Trace	99.99
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Carbon dic	273.69079
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Total Hydr	0.03262
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Drive Trace	99.99
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Drive Trace	99.99
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Drive Trace	99.99
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Particulate	0.00003
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Carbon Mc	0.31546
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Manufactu	37.11653
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Combined	0
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Drive Trace	99.99
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic CH4 - Metl	0.03478
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Carbon Mc	0.01097
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Non-metha	0.00030
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Drive Trace	99.99
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Particulate	0.00007
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Total Hydr	0.09755
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Drive Trace	99.99
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Manufactu	36.89488
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Non-metha	0.02885
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Particulate	0.00010
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Non-metha	0.00559
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Total Hydr	0.12814
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Nitrogen C	0.03322
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic CH4 - Metl	0.07393
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Drive Trace	99.99
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Nitrogen C	0.02878
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Non-metha	0.02885
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Nitrogen C	0.02284
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic Non-metha	0.00559
-0.059	0.01978	30	0.2	0.0186	LAB MFR:VPass	Not Applic CH4 - Metl	0.13187

-0.059	0.01978	30	0.2	0.0186	LAB MFR:\Pass	Not Applic	Manufactu	59.85785
-0.059	0.01978	30	0.2	0.0186	LAB MFR:\Pass	Not Applic	Drive Trace	99.99
-0.059	0.01978	30	0.2	0.0186	LAB MFR:\Pass	Not Applic	Non-metha	0.00030
-0.059	0.01978	30	0.2	0.0186	LAB MFR:\Pass	Not Applic	Carbon dic	169.87913
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Fail	Not Applic	Non-metha	0.02562
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Total Hydr	0.04366
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Fail	Not Applic	Carbon dic	287.46662
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Drive Trace	99.99
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Combined	0
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Manufactu	51.34875
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Drive Trace	99.99
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Fail	Not Applic	Total Hydr	0.16804
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Fail	Not Applic	Particulate	0.00007
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Total Hydr	0.09848
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Particulate	0.00016
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Nitrogen C	0.07763
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Carbon Mc	0.01922
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Drive Trace	99.99
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Carbon Mc	0.01119
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Particulate	0.00005
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Fail	Not Applic	Manufactu	35.31793
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Non-metha	0.00216
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	CH4 - Metl	0.10364
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Carbon dic	198.01473
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Fail	Not Applic	Drive Trace	99.99
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Fail	Not Applic	Drive Trace	99.99
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Fail	Not Applic	Non-metha	0.02562
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Non-metha	0.00216
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Carbon dic	296.31099
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Fail	Not Applic	Nitrogen C	0.12781
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Fail	Not Applic	CH4 - Metl	0.15326
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Fail	Not Applic	Drive Trace	99.99
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Fail	Not Applic	Carbon Mc	0.37377
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Drive Trace	99.99
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Manufactu	34.30205
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	CH4 - Metl	0.04713
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Nitrogen C	0.00090
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Drive Trace	99.99
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Non-metha	0
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Drive Trace	99.99
0.0145	0.01953	35	0.18	0.0193	LAB MFR:\Pass	Not Applic	Non-metha	0
0.0985	0.02674	117	0.528	0.0262	- Pass	Pass	Non-metha	0.005
0.0985	0.02674	117	0.528	0.0262	- Pass	Pass	Carbon Mc	0.082
0.0985	0.02674	117	0.528	0.0262	- Pass	Pass	Non-metha	0.013
0.0985	0.02674	117	0.528	0.0262	- Pass	Pass	Nitrogen C	0.023

0.0985	0.02674	117	0.528	0.0262	-	Pass	Pass	SFTP Comp 0.066
0.0985	0.02674	117	0.528	0.0262	-	Pass	Pass	Carbon Mc 0.006
0.0985	0.02674	117	0.528	0.0262	-	Pass	Pass	Manufactu 59.322
0.0985	0.02674	117	0.528	0.0262	-	Pass	Pass	Carbon dic 171.361
0.0985	0.02674	117	0.528	0.0262	-	Pass	Pass	Manufactu 39.999
0.0985	0.02674	117	0.528	0.0262	-	Pass	Pass	Non-metha 0.013
0.0985	0.02674	117	0.528	0.0262	-	Pass	Pass	Nitrogen C 0
0.0985	0.02674	117	0.528	0.0262	-	Pass	Pass	Total Hydr 0.055
0.0985	0.02674	117	0.528	0.0262	-	Pass	Pass	Carbon dic 254.089
0.0985	0.02674	117	0.528	0.0262	-	Pass	Pass	Particulate 0.001
0.0985	0.02674	117	0.528	0.0262	-	Pass	Pass	Carbon Mc 0.018
0.0985	0.02674	117	0.528	0.0262	-	Pass	Pass	Formaldeh 0
0.0985	0.02674	117	0.528	0.0262	-	Pass	Pass	Nitrogen C 0.018
0.0985	0.02674	117	0.528	0.0262	-	Pass	Pass	Non-metha 0.012
0.0985	0.02674	117	0.528	0.0262	-	Pass	Pass	Manufactu 37.39
0.0985	0.02674	117	0.528	0.0262	-	Pass	Pass	Carbon-Re 217.1
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Non-metha 0.01176
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Carbon Mc 0.15038
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Total Hydr 0.03572
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Carbon dic 171.51258
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Manufactu 36.01156
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	CH4 - Metl 0.21439
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Non-metha 0.00012
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Nitrogen C 0.12689
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	CH4 - Metl 0.06647
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Particulate 0.00008
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Non-metha 0.01176
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Nitrogen C 0.02407
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Manufactu 59.28410
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Combined 0
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Total Hydr 0.07328
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Carbon dic 259.09982
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Total Hydr 0.23254
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Manufactu 39.21814
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Nitrogen C 0.02558
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Non-metha 0.00012

0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Carbon Mc 0.01221
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Non-metha 0.03331
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Carbon Mc 0.10306
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	CH4 - Metl 0.03830
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Non-metha 0.03331
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Particulate 0
0.0366	0.01698	29	0.21	0.0168	LAB MFR:V	Pass	Not Applic	Carbon dic 281.67144
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Non-metha 0.015
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Particulate 0.001
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Non-metha 0.015
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Carbon Mc 0.003
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Carbon dic 178.159
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Total Hydr 0.056
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Non-metha 0.01
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Manufactu 57.09
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Carbon Mc 0
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Manufactu 39.121
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Combined 223.3
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Nitrogen C 0.027
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	CH4 - Metl 0.047
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Manufactu 36.772
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Carbon Mc 0.094
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Formaldeh 0
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Carbon dic 259.775
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	SFTP Comp 0.028
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Nitrogen C 0.039
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	SFTP Comp 0.073
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Non-metha 0.002
0.0982	0.0297	129	0.58	0.0289	-	Pass	Pass	Nitrogen C 0
-0.4288	0.03345	133	0.36	0.031	-	Pass	Pass	Carbon dic 273.236
-0.4288	0.03345	133	0.36	0.031	-	Pass	Pass	Non-metha 0.019
-0.4288	0.03345	133	0.36	0.031	-	Pass	Pass	Carbon Mc 0.155
-0.4288	0.03345	133	0.36	0.031	-	Pass	Pass	Non-metha 0.019
-0.4288	0.03345	133	0.36	0.031	-	Pass	Pass	Nitrogen C 0.036
-0.4288	0.03345	133	0.36	0.031	-	Pass	Pass	Carbon Mc 0.068
-0.4288	0.03345	133	0.36	0.031	-	Pass	Pass	Manufactu 61.392
-0.4288	0.03345	133	0.36	0.031	-	Pass	Pass	Carbon-Re 225.1
-0.4288	0.03345	133	0.36	0.031	-	Pass	Pass	CH4 - Metl 0.05
-0.4288	0.03345	133	0.36	0.031	-	Pass	Pass	SFTP Comp 0.07
-0.4288	0.03345	133	0.36	0.031	-	Pass	Pass	Nitrogen C 0.014
-0.4288	0.03345	133	0.36	0.031	-	Pass	Pass	Formaldeh 0
-0.4288	0.03345	133	0.36	0.031	-	Pass	Pass	Carbon dic 165.595
-0.4288	0.03345	133	0.36	0.031	-	Pass	Pass	Manufactu 37.18
-0.4288	0.03345	133	0.36	0.031	-	Pass	Pass	Non-metha 0.013
-0.4288	0.03345	133	0.36	0.031	-	Pass	Pass	Nitrogen C 0.001

-0.4288	0.03345	133	0.36	0.031-	Pass	Pass	Total Hydr	0.062
-0.4288	0.03345	133	0.36	0.031-	Pass	Pass	Manufactu	39.102
-0.4288	0.03345	133	0.36	0.031-	Pass	Pass	Non-meth	0.005
-0.4288	0.03345	133	0.36	0.031-	Pass	Pass	Carbon Mc	0
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Drive Trace 99.99
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Non-meth 0.00099
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Total Hydr 0.00127
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Carbon Mc 0.41827
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Non-meth 0.01370
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Carbon dic 324.28600
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Non-meth 0.00103
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Carbon Mc 0.11036
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Nitrogen C 0.01003
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Total Hydr 0.00773
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Manufactu 27.38153
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Carbon Mc 1.19758
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Manufactu 40.88690
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Non-meth 0.01317
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Nitrogen C 0.00171
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	CH4 - Met 0.00212
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Drive Trace 99.99
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Nitrogen C 0.00142
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Carbon dic 218.27021
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Combined 0
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Drive Trace 99.99
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Manufactu 27.08960
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Total Hydr 0.01561
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Non-meth 0.00577
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	CH4 - Met 0.00031
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Drive Trace 99.99
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Drive Trace 99.99
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Non-meth 0.00600
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Drive Trace 99.99
0.3357	0.01506	31	0.51	0.0133	V138RXX-(	Not Applic	Not Applic	Total Hydr 0.19744
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Carbon dic 329.22663
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	CH4 - Met 0.00278
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Drive Trace 99.99
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Drive Trace 99.99
0.3357	0.01506	31	0.51	0.0133	LAB MFR:V	Not Applic	Not Applic	Drive Trace 99.99
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Total Hydr 0.01105
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Carbon Mc 0.05271
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Manufactu 27.34994
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Carbon dic 321.61720
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	CH4 - Met 0.00184
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99

0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Nitrogen C 0.00313
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Total Hydr 0.00844
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Manufactu 27.73386
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Carbon Mc 0.25742
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Nitrogen C 0.01077
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Nitrogen C 0.00210
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Non-metha 0.00700
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Non-metha 0.00301
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Carbon dic 213.83031
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Carbon dic 325.90771
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Non-metha 0.00829
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	CH4 - Metl 0.00037
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Manufactu 41.75162
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Combined 0
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Non-metha 0.00673
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	CH4 - Metl 0.00305
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Carbon Mc 0.34014
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Non-metha 0.00289
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Non-metha 0.00862
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Total Hydr 0.00324
0.4421	0.01391	31	0.51	0.0133	LAB MFR:V	Pass	Not Applic	Drive Trace 99.99
1.2975	0.02239	136	1.4	0.0229	-	Pass	Pass	Non-metha 0.007
1.2975	0.02239	136	1.4	0.0229	-	Pass	Pass	Carbon dic 214.815
1.2975	0.02239	136	1.4	0.0229	-	Pass	Pass	Manufactu 41.54
1.2975	0.02239	136	1.4	0.0229	-	Pass	Pass	Carbon dic 329.09
1.2975	0.02239	136	1.4	0.0229	-	Pass	Pass	Carbon Mc 0.118
1.2975	0.02239	136	1.4	0.0229	-	Pass	Pass	Manufactu 27.75
1.2975	0.02239	136	1.4	0.0229	-	Pass	Pass	Non-metha 0.007
1.2975	0.02239	136	1.4	0.0229	-	Pass	Pass	Formaldeh 0
1.2975	0.02239	136	1.4	0.0229	-	Pass	Pass	CH4 - Metl 0.002
1.2975	0.02239	136	1.4	0.0229	-	Pass	Pass	Nitrogen C 0.002
1.2975	0.02239	136	1.4	0.0229	-	Pass	Pass	Nitrogen C 0.001
1.2975	0.02239	136	1.4	0.0229	-	Pass	Pass	Nitrogen C 0.006
1.2975	0.02239	136	1.4	0.0229	-	Pass	Pass	Combined 277.9
-	-	-	-	-	-	Pass	Pass	Hydrocarb 0.019
1.2975	0.02239	136	1.4	0.0229	-	Pass	Pass	Manufactu 27.1
1.2975	0.02239	136	1.4	0.0229	-	Pass	Pass	Carbon Mc 0.225
1.2975	0.02239	136	1.4	0.0229	-	Pass	Pass	Total Hydr 0.008

1.2975	0.02239	136	1.4	0.0229	Pass	Pass	SFTP Comp	0.008
-	-	-	-	-	Pass	Pass	Total Hydr	0.259
1.2975	0.02239	136	1.4	0.0229	Pass	Pass	Non-meth	0.005
1.2975	0.02239	136	1.4	0.0229	Pass	Pass	Carbon Mc	0.066
1.2975	0.02239	136	1.4	0.0229	Pass	Pass	Non-meth	0.002
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Non-meth	0.00715
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic CH4 - Met	0.00181
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Drive Trac	99.99
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Non-meth	0.00862
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Nitrogen C	0.00253
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Manufactu	39.43112
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Carbon dic	226.26697
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic CH4 - Met	0.00024
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Carbon Mc	0.30990
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Non-meth	0.00687
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Carbon dic	327.52785
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Drive Trac	99.99
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Drive Trac	99.99
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Drive Trac	99.99
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Drive Trac	99.99
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Nitrogen C	0.00306
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Non-meth	0.00062
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Manufactu	26.49823
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Drive Trac	99.99
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Organic m	0.00060
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Carbon Mc	0.15468
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic CH4 - Met	0.00241
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Drive Trac	99.99
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Carbon dic	336.54718
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Non-meth	0.00828
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Carbon Mc	0.26660
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Drive Trac	99.99
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Manufactu	27.19348
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Total Hydr	0.00909
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Total Hydr	0.00083
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Combined	0
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Nitrogen C	0.03513
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Drive Trac	99.99
0.216	0.02107	30	0.29	0.0212	LAB MFR:V	Pass	Not Applic Total Hydr	0.00997
0.5567	0.02943	149	0.81	0.0294	Pass	Pass	Formaldeh	0
0.5567	0.02943	149	0.81	0.0294	Pass	Pass	Manufactu	27.532
0.5567	0.02943	149	0.81	0.0294	Pass	Pass	Manufactu	39.389
0.5567	0.02943	149	0.81	0.0294	Pass	Pass	Nitrogen C	0.003
0.5567	0.02943	149	0.81	0.0294	Pass	Pass	Non-meth	0.007
0.5567	0.02943	149	0.81	0.0294	Pass	Pass	Carbon dic	226.405

0.5567	0.02943	149	0.81	0.0294-	Pass	Pass	Carbon Mc	0.147
0.5567	0.02943	149	0.81	0.0294-	Pass	Pass	CH4 - Metl	0.002
0.5567	0.02943	149	0.81	0.0294-	Pass	Pass	Nitrogen C	0.001
0.5567	0.02943	149	0.81	0.0294-	Pass	Pass	Manufactu	27.082
0.5567	0.02943	149	0.81	0.0294-	Pass	Pass	Non-metha	0.008
0.5567	0.02943	149	0.81	0.0294-	Pass	Pass	SFTP Comp	0.008
0.5567	0.02943	149	0.81	0.0294-	Pass	Pass	Non-metha	0.001
0.5567	0.02943	149	0.81	0.0294-	Pass	Pass	Combined	280.3
0.5567	0.02943	149	0.81	0.0294-	Pass	Pass	Carbon dic	323.794
0.5567	0.02943	149	0.81	0.0294-	Pass	Pass	Carbon Mc	0.866
0.5567	0.02943	149	0.81	0.0294-	Pass	Pass	Non-metha	0.007
0.5567	0.02943	149	0.81	0.0294-	Pass	Pass	Total Hydr	0.009
0.5567	0.02943	149	0.81	0.0294-	Pass	Pass	Carbon Mc	0.273
0.5567	0.02943	149	0.81	0.0294-	Pass	Pass	Nitrogen C	0.007
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Manufactu	27.961
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Manufactu	27.255
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	CH4 - Metl	0.002
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Formaldeh	0
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Carbon Mc	0.23
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Carbon Mc	0.355
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Non-metha	0.006
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	SFTP Comp	0.008
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Non-metha	0.003
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Carbon dic	216.838
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Nitrogen C	0.003
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Nitrogen C	0.002
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Non-metha	0.006
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Nitrogen C	0.01
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Carbon dic	318.881
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Combined	273.3
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Total Hydr	0.008
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Non-metha	0
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Carbon Mc	0.127
0.7849	0.02787	147	0.8	0.0294-	Pass	Pass	Manufactu	41.131
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Total Hydr	0.007
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Carbon dic	347.964
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Non-metha	0.006
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Non-metha	0.006
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Carbon Mc	0.2
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Non-metha	0.006
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	SFTP Comp	0.013
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Carbon-Re	283.3
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Manufactu	43.79
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Nitrogen C	0.003
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Formaldeh	0

0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Carbon Mc	0.136
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Nitrogen C	0.003
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Non-metha	0.001
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Carbon dic	203.633
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Manufactu	25.63
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Manufactu	30.14
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Nitrogen C	0.024
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	CH4 - Metl	0.002
0.0572	0.02885	133	0.37	0.0295-	Pass	Pass	Carbon Mc	0.251
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Manufactu	25.992
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Carbon Mc	0.227
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Non-metha	0.008
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Non-metha	0.008
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Non-metha	0
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Nitrogen C	0.002
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Formaldeh	0
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Carbon Mc	0.25
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Manufactu	44.524
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	SFTP Comp	0.008
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Carbon dic	200.318
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Carbon Mc	0.095
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Carbon dic	343.015
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Manufactu	30.061
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Nitrogen C	0.01
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Carbon-Re	279.1
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	CH4 - Metl	0.001
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Nitrogen C	0.002
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Total Hydr	0.009
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Non-metha	0.002
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Carbon-Re	279.1
-	-	-	-	-	Pass	Pass	Total Hydr	0.163
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Carbon dic	329.836
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Carbon dic	215.577
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Non-metha	0.023
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Manufactu	26.927
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Non-metha	0.064
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Formaldeh	0.002
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Nitrogen C	0.04
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Nitrogen C	0.022
-	-	-	-	-	Pass	Pass	Hydrocarb	0.025
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Non-metha	0.067
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Carbon Mc	0.565
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Nitrogen C	0.054
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	CH4 - Metl	0.006
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Manufactu	27.841

0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Carbon Mc	0.321
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Manufactu	41.301
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Total Hydr	0.069
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	SFTP Comp	0.062
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Carbon Mc	0.085
0.9664	0.02519	136	1.4	0.0229-	Pass	Pass	Non-metha	0.013
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Total Hydr	0.064
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Non-metha	0.006
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	CH4 - Meth	0.004
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Carbon dic	325.098
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Carbon Mc	0.636
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	SFTP Comp	0.056
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Manufactu	25.9
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Carbon Mc	0.123
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Nitrogen C	0.005
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Carbon Mc	0.489
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Nitrogen C	0.048
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Non-metha	0.06
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Manufactu	38.36
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Carbon dic	232.521
-	-	-	-	-	-	Pass	Not Applic	Total Hydr	0.297
-	-	-	-	-	-	Pass	Not Applic	Hydrocarb	0.043
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Non-metha	0.063
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Non-metha	0.024
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Carbon-Re	284
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Formaldeh	0.002
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Nitrogen C	0.031
0.3051	0.03955	134	0.81	0.0365-	Pass	Not Applic	Manufactu	27.38
0.612	0.02914	149	0.81	0.0294-	Pass	Not Applic	Non-metha	0.064
0.612	0.02914	149	0.81	0.0294-	Pass	Pass	Nitrogen C	0.002
0.612	0.02914	149	0.81	0.0294-	Pass	Pass	Manufactu	40.42
0.612	0.02914	149	0.81	0.0294-	Pass	Not Applic	Nitrogen C	0.045
0.612	0.02914	149	0.81	0.0294-	Pass	Not Applic	Nitrogen C	0.055
0.612	0.02914	149	0.81	0.0294-	Pass	Pass	Carbon dic	220.656
0.612	0.02914	149	0.81	0.0294-	Pass	Not Applic	Carbon Mc	0.511
0.612	0.02914	149	0.81	0.0294-	Pass	Not Applic	CH4 - Meth	0.006
0.612	0.02914	149	0.81	0.0294-	Pass	Not Applic	Carbon dic	316.253
0.612	0.02914	149	0.81	0.0294-	Pass	Not Applic	Manufactu	28.14
0.612	0.02914	149	0.81	0.0294-	Pass	Not Applic	Formaldeh	0.002
0.612	0.02914	149	0.81	0.0294-	Pass	Not Applic	SFTP Comp	0.062
0.612	0.02914	149	0.81	0.0294-	Pass	Not Applic	Non-metha	0.018
0.612	0.02914	149	0.81	0.0294-	Pass	Pass	Non-metha	0.003
0.612	0.02914	149	0.81	0.0294-	Pass	Not Applic	Total Hydr	0.066
0.612	0.02914	149	0.81	0.0294-	Pass	Not Applic	Carbon Mc	0.503
0.612	0.02914	149	0.81	0.0294-	Pass	Pass	Combined	273.9

0.612	0.02914	149	0.81	0.0294-	Pass	Not Applic	Non-metha	0.061
0.612	0.02914	149	0.81	0.0294-	Pass	Not Applic	Manufactu	27.54
0.612	0.02914	149	0.81	0.0294-	Pass	Pass	Carbon Mo	0.105
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Total Hydr	0.045
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Carbon Mo	0.582
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	SFTP Comp	0.042
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Non-metha	0.042
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Carbon dio	358.063
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Nitrogen C	0.029
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Manufactu	30.084
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Carbon dio	200.485
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Non-metha	0.043
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Non-metha	0.002
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Manufactu	24.854
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	CH4 - Meth	0.004
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Carbon-Re	278.8
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Carbon Mo	0.603
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Non-metha	0.02
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Nitrogen C	0.028
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Nitrogen C	0.001
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Formaldeh	0.001
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Carbon Mo	0.104
-0.0929	0.0306	133	0.37	0.0295-	Pass	Pass	Manufactu	44.482
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Non-metha	0.02
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Nitrogen C	0.038
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Carbon Mo	0.1
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Nitrogen C	0.003
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Non-metha	0.005
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Carbon Mo	0.708
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Carbon dio	197.509
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Carbon Mo	0.802
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Carbon dio	343.578
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Manufactu	45.16
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Nitrogen C	0.035
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Manufactu	30.85
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Non-metha	0.054
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	SFTP Comp	0.052
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	CH4 - Meth	0.006
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Carbon-Re	278.7
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Formaldeh	0.002
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Total Hydr	0.059
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Manufactu	25.87
0.074	0.0306	140	0.37	0.0306-	Pass	Pass	Non-metha	0.056
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Non-metha	0.016
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Nitrogen C	0.006

0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Carbon Mc	0.379
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Formaldeh	0.001
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	CH4 - Metl	0.005
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	SFTP Comp	0.029
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Nitrogen C	0.02
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Carbon-Re	315.9
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Manufactu	37.6
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Carbon Mc	0.047
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Manufactu	23.49
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Manufactu	26.14
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Nitrogen C	0.023
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Carbon dic	237.348
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Non-metha	0.018
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Non-metha	0.003
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Carbon dic	379.443
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Non-metha	0.019
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Total Hydr	0.023
0.2311	0.0321	150	0.8	0.0307-	Pass	Pass	Carbon Mc	0.213
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Non-metha	0.019
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Nitrogen C	0.015
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Combined	309.6
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	CH4 - Metl	0.006
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Formaldeh	0.001
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	SFTP Comp	0.023
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Carbon dic	234.558
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Manufactu	24.066
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Non-metha	0.02
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Carbon Mc	0.275
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Carbon Mc	0.04
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Manufactu	38.042
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Non-metha	0.001
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Carbon Mc	0.356
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Carbon dic	370.241
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Manufactu	26.447
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Total Hydr	0.025
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Non-metha	0.012
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Nitrogen C	0.002
0.3054	0.03133	150	0.8	0.0307-	Pass	Pass	Nitrogen C	0.012

Test ResultUnit	Fed InUse Std	CA InUse Std	ResultBag 1	ResultBag 2	ResultBag 3	ResultBag 4	EPA Percent Fed Std	EPA Percent CA Std	Veh Delete Reason
grams per	0.03	-	0.012	0	0.005	-	14	-	-
grams per	-	-	0.068	0.001	0.012	-	-	-	-
grams per	0.075	0.04	0.071	0.001	0.012	-	26	48	-
grams per	0.067	0.067	-	-	-	-	8	8	-
grams per	0.2	0.2	-	-	-	-	2	2	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.015	0.008	0.002	0	0	-	7	13	-
grams per	0.05	-	-	-	-	-	7	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	11.1	-	-	-	-	-	13	-	-
miles per g	-	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	3.4	1.7	1.143	0.294	0.577	-	17	33	-
grams per	-	-	0.079	0.001	0.016	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
miles per g	-	-	22.54	23.52	26.17	-	-	-	-
grams per	-	-	393.97	379.027	340.115	-	-	-	-
grams per	332.4	-	-	-	-	-	97	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.05	0.05	0.077	0.008	0.017	-	50	50	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.65	0.65	-	-	-	-	42	42	-
grams per	0.015	0.08	0.002	0	0	-	0	0	-
grams per	3.4	1.7	0.98	0.342	0.26	-	14	27	-
grams per	0.03	-	0.012	0	0.003	-	10	-	-
grams per	0.075	0.04	0.06	0.001	0.005	-	22	40	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	0.05	-	-	-	-	-	5	-	-
grams per	-	-	0.063	0.001	0.006	-	-	-	-
grams per	-	-	385.904	369.347	319.236	-	-	-	-
miles per g	-	-	22.986	24.092	27.876	-	-	-	-
grams per	0.067	0.067	-	-	-	-	8	8	-
grams per	11.1	-	-	-	-	-	4	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	0.074	0.001	0.008	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	317.1	-	-	-	-	-	94	-	-
grams per	0.05	0.05	0.047	0.01	0.006	-	32	32	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-

grams per	-	-	-	-	-	-	-	-
gs and ORVR	0.2	0.2	-	-	-		12	12
grams per	0.03	-	0.022	0	0.005	-	20	-
alifornia)	0.075	0.04	0.067	0.001	0.01	-	23	43
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	0.015	0.008	0.002	0	0	-	0	0
grams per	0.05	0.05	0.045	0.024	0.022	-	56	56
grams per	-		456.766	434.087	366.748	-	-	-
miles per g	-		19.392	20.561	24.284	-	-	-
miles per g	-	-	-	-	-	-	-	-
ge Hydrocarbon + Nitrogen Oxides								
grams per	0.65	-	-	-	-		9	-
alifornia)	-	-	-	-	-	-	-	-
grams per	0.015	0.008	0.002	0	0	-	0	0
grams per	-	-	-	-	-	-	-	-
ssions								
grams per	363.4	-	-	-	-		100	-
grams per	3.4	1.7	2.09	0.005	0.49	-	17	34
grams per	0.85	0.85	-	-	-		38	38
grams per	0.05	0.05	0.057	0.028	0.027	-	68	68
miles per g	-		19	18.9	22.6	-	-	-
alifornia)	0.075	0.04	0.057	0.001	0.007	-	19	35
grams per	11.1	-	-	-	-		21	-
grams per	-	-	-	-	-	-	-	-
grams per	-		0.064	0.001	0.01	-	-	-
grams per	0.03	-	0.021	0	0.004	-	17	-
grams per	0.067	0.067	-	-	-		15	15
grams per	3.4	1.7	1.943	0	0.405	-	16	31
grams per	-		0.083	0.001	0.014	-	-	-
grams per	-		466.6	472.3	394.5	-	-	-
grams per	-		0.073	0.001	0.011	-	-	-
grams per	-		0.055	0.001	0.007	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
gs and ORVR	0.2	0.2	-	-	-		12	12
grams per	-		0.084	0.001	0.011	-	-	-
grams per	0.03	-	0.023	0	0.005	-	20	-
grams per	0.067	0.067	-	-	-		14	14
miles per g	-	-	-	-	-	-	-	-
grams per	0.65	0.65	-	-	-		43	43
miles per g	-		20.43	21.917	25.681	-	-	-
alifornia)	0.075	0.04	0.067	0.001	0.007	-	22	40
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	11.1	-	-	-	-		21	-
grams per	-		434.18	406.976	346.786	-	-	-

grams per	-	-	0.064	0.001	0.007	-	-	-
grams per	-	-	0.002	0	0	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
ne Hydrocarbon + Nitrogen Oxides								
grams per	0.65	-	-	-	-		10	-
alifornia)								
grams per	-	-	-	-	-	-	-	-
ssions								
grams per	350.1	-	-	-	-		97	-
grams per	0.05	0.05	0.06	0.019	0.012	-	52	52
grams per	3.4	1.7	1.407	0.031	0.352	-	12	24
grams per	0.05	0.05	0.04	0.021	0.017	-	48	48
alifornia)								
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-		14	14
alifornia)								
grams per	0.075	0.04	0.079	0	0.007	-	24	45
grams per	0.03	-	0.021	0	0.004	-	17	-
grams per	-	-	430.496	415.723	349.58	-	-	-
ne Hydrocarbon + Nitrogen Oxides								
grams per	0.65	-	-	-	-		8	-
xhaust Emissions								
grams per	377.9	-	-	-	-		91	-
miles per g	-	-	19.6	20.3	23	-	-	-
grams per	0.03	-	0.017	0	0.002	-	14	-
grams per	0.015	0.008	0.002	0	0	-	0	0
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
gs and ORVR								
grams per	0.2	0.2	-	-	-		21	21
grams per	0.05	0.05	0.037	0.025	0.019	-	52	52
grams per	-	-	0.057	0	0.003	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	3.4	1.7	1.776	0	0.103	-	12	24
alifornia)								
grams per	0.075	0.04	0.059	0	0.003	-	18	33
grams per	3.4	1.7	1.699	0.005	0.062	-	11	22
miles per g	-	-	20.584	21.458	25.51	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	11.1	-	-	-	-		10	-
grams per	0.65	0.65	-	-	-		40	40
grams per	-	-	0.071	0	0.005	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	0.076	0	0.006	-	-	-
grams per	0.015	0.008	0.002	0	0	-	7	13
grams per	-	-	0.095	0	0.01	-	-	-
grams per	-	-	453	438.6	387.4	-	-	-
grams per	-	-	0.067	0.045	0.021	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-		38	38
grams per	0.05	0.05	0.109	0.012	0.018	-	68	68

grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-		0.032	0.007	0.002	-	-	-
grams per	-		447.159	435.183	362.356	-	-	-
grams per	0.99	-	-	-	-		14	-
grams per	16.9	-	-	-	-		1	-
grams per	-	-	-	-	-	-	-	-
grams per	3.4	1.7	0.568	0.002	0.003	-	4	7
grams per	378.7	-	-	-	-		90	-
miles per g	-		22.699	23.374	28.076	-	-	-
grams per	0.075	0.04	0.032	0.007	0.002	-	15	28
grams per	0.01	0.01	0.001	0.001	0	-	10	10
grams per	0.04	-	0.039	0.044	0.021	-	93	-
miles per g	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	0.075	0.04	0.079	0.012	0.005	-	32	60
miles per g	-		21.68	22.39	26.81	-	-	-
grams per	0.05	0.05	0.171	0.004	0.029	-	90	90
grams per	0.067	0.067	-	-	-		14	14
grams per	378.1	-	-	-	-		93	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-		0.113	0.055	0.026	-	-	-
grams per	3.4	1.7	1.438	0.023	0.008	-	10	19
grams per	-		466.618	454.337	379.384	-	-	-
grams per	0.04	-	0.04	0.05	0.024	-	100	-
grams per	0.01	0.01	0	0.001	0	-	0	0
grams per	-		0	0	0	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-		0.079	0.012	0.005	-	-	-
grams per	16.9	-	-	-	-		1	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	0.99	-	-	-	-		14	-
grams per	0.05	0.05	0.153	0.003	0.024	-	80	80
grams per	0.08	-	-	-	-		3	-
miles per g	-	-	-	-	-	-	-	-
grams per	3.4	1.7	1.191	0.01	0.004	-	8	15
grams per	0.01	0.01	0.002	0.001	0.001	-	10	10
grams per	-		0.09	0.05	0.022	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	1.41	-	-	-	-		14	-
grams per	0.067	0.067	-	-	-		89	89

miles per g	-		20.331	20.836	24.78	-	-	-	-
aliforniaj									
grams per	0.075	0.04	0.057	0.009	0.004	-	24	45	-
grams per	-	-	-	-	-	-	-	-	
xhaust Emissions									
grams per	398.5	-	-	-	-		97	-	-
grams per	-		0.057	0.009	0.004	-	-	-	
miles per g	-	-	-	-	-	-	-	-	
grams per	19.3	-	-	-	-		1	-	-
grams per	-	-	-	-	-	-	-	-	
aliforniaj									
grams per	-	-	-	-	-	-	-	-	
grams per	-		498.317	488.169	410.552	-	-	-	
grams per	-	-	-	-	-	-	-	-	
grams per	0.015	0.008	0	0	0	-	0	0	-
grams per	0.04	-	0.038	0.047	0.021	-	95	-	
grams per	-	-	-	-	-	-	-	-	
xhaust Emissions									
grams per	398.5	-	-	-	-		92	-	-
ne Hydrocarbon + Nitrogen Oxides									
grams per	1.41	-	-	-	-		11	-	-
grams per	-	-	-	-	-	-	-	-	
grams per	-		0.073	0.049	0.019	-	-	-	
grams per	19.3	-	-	-	-		1	-	-
aliforniaj									
grams per	-	-	-	-	-	-	-	-	
grams per	3.4	1.7	1.248	0.006	0.004	-	8	16	-
grams per	-		0	0	0	-	-	-	
grams per	-		479.083	466.001	391.265	-	-	-	
grams per	0.04	-	0.039	0.048	0.019	-	95	-	
miles per g	-		21.14	21.83	26	-	-	-	
miles per g	-	-	-	-	-	-	-	-	
miles per g	-	-	-	-	-	-	-	-	
grams per	-		0.039	0.007	0.002	-	-	-	
grams per	-	-	-	-	-	-	-	-	
aliforniaj									
grams per	0.075	0.04	0.039	0.007	0.002	-	18	33	-
grams per	-	-	-	-	-	-	-	-	
grams per	0.067	0.067	-	-	-		33	33	-
grams per	0.05	0.05	0.108	0.008	0.007	-	56	56	-
grams per	0.01	0.01	0.001	0	0.001	-	0	0	-
grams per	-		0.148	0.003	0.013	-	-	-	
grams per	11.1	-	-	-	-		53	-	-
grams per	-		505.469	507.259	366.824	-	-	-	
grams per	3.4	3.4	3.053	0.071	0.648	-	25	25	-
grams per	-	-	-	-	-	-	-	-	
miles per g	-	-	-	-	-	-	-	-	
miles per g	-		17.48	17.59	24.27	-	-	-	
ne Hydrocarbon + Nitrogen Oxides									
grams per	0.05	-	-	-	-		36	-	-
miles per g	-	-	-	-	-	-	-	-	
grams per	-		0.032	0	0.003	-	-	-	
grams per	0.05	0.05	0.083	0.024	0.025	-	72	72	-

grams per	0.015	0.015	0.004	0	0	-		7	7
grams per	-	-	-	-	-	-	-	-	-
grams per	424.7	-	-	-	-		94	-	-
grams per	0.075	0.075	0.154	0.003	0.014	-		50	50
grams per	-	-	0.176	0.003	0.016	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-		42	42	-
grams per	-	-	501.736	504.261	441.562	-	-	-	-
grams per	-	-	0.126	0.002	0.008	-	-	-	-
grams per	-	-	0.107	0.002	0.007	-	-	-	-
grams per	0.067	0.067	-	-	-		54	54	-
grams per	1.15	1.15	-	-	-		59	59	-
grams per	11.1	-	-	-	-		50	-	-
grams per	0.65	-	-	-	-		34	-	-
grams per	0.05	0.05	0.054	0.028	0.018	-		62	62
grams per	-	-	-	-	-	-	-	-	-
grams per	0.075	0.075	0.111	0.002	0.007	-		35	35
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.2	0.2	-	-	-		5	5	-
grams per	0.015	0.015	0.003	0	0	-		7	7
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.03	-	0.022	0	0.002	-		17	-
grams per	3.4	3.4	2.303	0.015	0.197	-		16	16
miles per g	-	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
miles per g	-	-	17.65	17.7	20.2	-	-	-	-
grams per	424.7	-	-	-	-		98	-	-
grams per	0.03	0.02	0.014	0.006	0.003	-		24	35
grams per	-	-	0.054	0.001	0.005	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	317.5	-	-	-	-		88	-	-
grams per	0.65	0.35	-	-	-		36	67	-
grams per	-	-	0.041	0.001	0.002	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	339.471	321.285	289.738	-	-	-	-
grams per	0.03	-	0.015	0	0.004	-		14	-
grams per	-	-	-	-	-	-	-	-	-
miles per g	-	-	26.1	27.8	30.8	-	-	-	-
grams per	0.011	0.008	0.001	0	0	-		0	0
grams per	0.62	-	-	-	-		4	-	-
grams per	-	-	-	-	-	-	-	-	-

xhaust Emissions
ne Hydrocarbon + Nitrogen Oxides
ne Hydrocarbon + Nitrogen Oxides
ss and ORVR
ssions
ssions

miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
alifornia)	grams per	0.055	0.01	0.043	0.001	0.002	-	19	100	-
grams per	2.1	1	1.482	0.154	0.194	-	21	44	-
grams per	11.1	-	-	-	-	-	7	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.04	0.027	-	-	-	-	55	82	-
gs and ORVR	grams per	0.2	0.2	-	-	-	-	13	13	-
grams per	0.03	0.02	0.019	0.005	0.002	-	24	35	-
alifornia)	grams per	0.055	0.01	0.022	0.001	0.001	-	10	50	-
grams per	-		0.021	0.001	0.001	-	-	-	-
grams per	-		0.031	0.001	0.004	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
alifornia)	grams per	-	-	-	-	-	-	-	-	-
grams per	0.011	0.004	0.001	0	0	-	0	0	-
grams per	-	-	-	-	-	-	-	-	-
ssions	grams per	282.9	-	-	-	-	-	91	-	-
miles per g	-		27.821	28.866	33.428	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	2.1	1	0.915	0.131	0.15	-	15	30	-
ne Hydrocarbon + Nitrogen Oxides	grams per	0.52	-	-	-	-	5	-	-
grams per	0.04	0.027	-	-	-	-	3	4	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-		319.292	308.996	266.762	-	-	-	-
grams per	0.03	-		0.011	0	0.004	-	10	-	-
grams per	11.1	-	-	-	-	-	29	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
miles per g	-		27.37	28.7	32.77	-	-	-	-
grams per	-		0.156	0.003	0.01	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.03	-		0.024	0.002	0.01	-	30	-	-
alifornia)	grams per	0.075	0.04	0.141	0.001	0.001	-	40	75	-
grams per	11.1	-	-	-	-	-	3	-	-
grams per	0.015	0.008	0.004	0	0	-	7	13	-
grams per	3.4	1.7	2.397	0.214	0.775	-	25	49	-
grams per	0.05	0.05	0.081	0.004	0.002	-	38	38	-
grams per	0.067	0.067	-	-	-	-	5	5	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
xhaust Emissions	grams per	315.5	-	-	-	-	-	86	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
alifornia)	grams per	-	-	-	-	-	-	-	-	-
grams per	-		0.135	0.001	0.001	-	-	-	-

miles per g	-	-	-	-	-	-	-	-
grams per	-	-	321.904	310.7	271.186	-	-	-
ne Hydrocarbon + Nitrogen Oxides								
grams per	0.05	-	-	-	-		4	-
grams per	-	-	0.14	0.001	0.002	-	-	-
miles per g	-	-	28.683	29.421	33.712	-	-	-
grams per	0.03	-	0.025	0.002	0.006	-	27	-
grams per	0.05	0.05	0.031	0.005	0.003	-	20	20
grams per	-	-	306.508	303.294	264.418	-	-	-
grams per	-	-	0.162	0.003	0.007	-	-	-
grams per	0.015	0.008	0.004	0	0	-	7	13
grams per	11.1	-	-	-	-		5	-
ne Hydrocarbon + Nitrogen Oxides								
grams per	0.05	-	-	-	-		4	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
alifornia)								
grams per	-	-	-	-	-	-	-	-
grams per	3.4	1.7	2.684	0.076	0.233	-	20	39
grams per	0.067	0.067	-	-	-		3	3
alifornia)								
grams per	0.075	0.04	0.146	0.001	0.002	-	43	80
miles per g	-	-	-	-	-	-	-	-
xhaust Emissions								
grams per	276.8	-	-	-	-		93	-
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.015	0.008	0.004	0	0	-	7	13
grams per	3.4	1.7	1.489	0.373	0.869	-	22	44
grams per	-	-	0.126	0.002	0.014	-	-	-
grams per	11.1	-	-	-	-		13	-
ssions								
grams per	332.4	-	-	-	-		100	-
ne Hydrocarbon + Nitrogen Oxides								
grams per	0.05	-	-	-	-		8	-
grams per	0.03	-	0.018	0.001	0.007	-	20	-
miles per g	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-		11	11
miles per g	-	-	22.357	23.217	25.46	-	-	-
grams per	0.05	0.05	0.081	0.01	0.034	-	62	62
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
alifornia)								
grams per	-	-	-	-	-	-	-	-
ss and ORVR								
grams per	0.2	0.2	-	-	-		3	3
grams per	0.65	0.65	-	-	-		53	53
grams per	-	-	396.437	383.852	349.144	-	-	-
alifornia)								
grams per	0.075	0.04	0.131	0.002	0.014	-	43	80
grams per	-	-	0.142	0.003	0.02	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-

miles per g	-		22.726	23.59	27.476	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
alifornia)	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.05	0.05	0.076	0.008	0.01	-	44	44	-
miles per g	-	-	-	-	-	-	-	-	-
ne Hydrocarbon + Nitrogen Oxides			-	-	-		6	-	-
grams per	0.067	0.067	-	-	-		21	21	-
ssions	325.6	-	-	-	-		93	-	-
grams per	0.03	-	0.021	0	0.002	-	17	-	-
grams per	-		0.151	0.003	0	-	-	-	-
grams per	-		389.515	377.81	324.143	-	-	-	-
grams per	3.4	1.7	1.621	0.213	0.337	-	16	32	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.65	0.65	-	-	-		28	28	-
grams per	0.015	0.008	0.004	0	0	-	7	13	-
alifornia)	0.075	0.04	0.138	0.003	0	-	40	75	-
grams per	-		0.133	0.003	0	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	11.1	-	-	-	-		16	-	-
ss and ORVR	0.2	0.2	-	-	-		12	12	-
miles per g	-		17.498	17.324	21.056	-	-	-	-
grams per	0.05	0.05	0.084	0.001	0.002	-	36	36	-
grams per	-		507.025	515.218	423.774	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	0.015	0.008	0.002	0	0	-	0	0	-
ss and ORVR	0.2	0.2	-	-	-		4	4	-
grams per	3.4	1.7	1.812	0.05	0.129	-	13	26	-
ne Hydrocarbon + Nitrogen Oxides			-	-	-		5	-	-
grams per	0.03	-	0.03	0	0.001	-	24	-	-
grams per	-		0.073	0.002	0.001	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
alifornia)	0.075	0.04	0.076	0.002	0.001	-	23	43	-
grams per	-		0.099	0.002	0.002	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.65	0.65	-	-	-		55	55	-
grams per	0.067	0.067	-	-	-		6	6	-
grams per	11.1	-	-	-	-		8	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
xhaust Emissions	415.4	-	-	-	-		97	-	-
grams per	3.4	1.7	1.696	0.01	0.028	-	11	22	-

grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-		515.744	522.192	413.627	-	-	-
grams per	11.1	-	-	-	-		4	-
grams per	0.067	0.067	-	-	-		11	11
miles per g	-	-	-	-	-	-	-	-
grams per	0.03	-		0.029	0	0.001	-	20
grams per	0.075	0.04	0.071	0.004	0.003	-	23	43
grams per	-		0.093	0.003	0.005	-	-	-
grams per	416.5	-	-	-	-		99	-
grams per	0.05	0.05	0.091	0.007	0.01	-	50	50
miles per g	-		17.21	17.09	21.58	-	-	-
grams per	-		0.068	0.003	0.003	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.05	-		-	-		5	-
grams per	0.015	0.008	0.002	0	0	-	7	13
grams per	-	-	-	-	-	-	-	-
grams per	0.2	0.2	-	-	-		15	15
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.65	0.65	-	-	-		47	47
grams per	-		0.144	0.002	0.004	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-		0.127	0.002	0.001	-	-	-
grams per	11.1	-	-	-	-		19	-
grams per	-	-	-	-	-	-	-	-
grams per	300.5	-	-	-	-		92	-
grams per	0.067	0.067	-	-	-		2	2
grams per	0.05	0.05	0.05	0.003	0.002	-	24	24
grams per	0.075	0.04	0.132	0.002	0.001	-	39	73
grams per	0.03	-		0.02	0	0.003	-	17
grams per	0.015	0.008	0.004	0	0	-	7	13
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	3.4	1.7	1.976	0.087	0.307	-	16	32
grams per	-	-	-	-	-	-	-	-
grams per	0.65	-		-	-		8	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
miles per g	-		27.252	24.779	30.413	-	-	-
grams per	-		323.962	360.059	292.98	-	-	-
grams per	0.03	-		0.017	0	0.003	-	14
grams per	0.65	-		-	-		5	-
grams per	-		0.102	0.001	0.004	-	-	-
grams per	0.05	0.05	0.072	0	0.008	-	34	34

aliforniaxhaust Emissionsne Hydrocarbon + Nitrogen Oxidesss and ORVRaliforniaaliforniaessionsne Hydrocarbon + Nitrogen Oxidesaliforniane Hydrocarbon + Nitrogen Oxides

grams per	0.015	0.008	0.003	0	0	-	7	13
grams per	-	-	-	-	-	-	-	-
grams per	11.1	-	-	-	-	-	26	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.65	0.65	-	-	-	-	37	37
grams per	3.4	1.7	1.37	0.017	0.588	-	14	27
grams per	0.075	0.04	0.091	0.001	0.001	-	27	50
grams per	-	-	0.087	0.001	0.001	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-	-	9	9
grams per	0.2	0.2	-	-	-	-	10	10
grams per	-	-	375.354	356.572	331.611	-	-	-
miles per g	-	-	23.623	25.03	26.84	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	338.8	-	-	-	-	-	93	-
grams per	-	-	0.107	0.001	0.005	-	-	-
grams per	-	-	330.386	347.123	296.815	-	-	-
grams per	0.65	0.65	-	-	-	-	39	39
grams per	0.2	0.2	-	-	-	-	28	28
grams per	0.075	0.04	0.096	0.001	0.002	-	28	53
grams per	0.05	0.05	0.055	0	0.001	-	24	24
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	26.82	25.71	29.98	-	-	-
grams per	0.65	-	-	-	-	-	7	-
grams per	-	-	0.092	0.001	0.002	-	-	-
miles per g	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-	-	11	11
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.03	-	0.017	0	0.003	-	14	-
grams per	11.1	-	-	-	-	-	12	-
grams per	302.9	-	-	-	-	-	94	-
grams per	3.4	1.7	1.334	0.035	0.572	-	14	27
grams per	0.015	0.008	0.003	0	0	-	7	13
grams per	-	-	-	-	-	-	-	-
grams per	0.015	0.008	0.004	0	0	-	7	13
grams per	0.075	0.04	0.145	0.002	0.003	-	43	80
grams per	-	-	0.155	0.002	0.004	-	-	-
grams per	0.65	-	-	-	-	-	6	-
miles per g	-	-	-	-	-	-	-	-

grams per -	-	-	-	-	-	-	-	-
grams per -	-	-	-	-	-	-	-	-
miles per g-	-	-	-	-	-	-	-	-
grams per -	-		457.903	461.903	390.227	-	-	-
grams per	391.4	-	-	-	-		95	-
grams per	0.05	0.05	0.024	0.026	0.018	-	46	46
grams per	3.4	1.7	1.746	0.009	0.235	-	13	26
miles per g-	-		19.36	19.33	22.85	-	-	-
grams per	11.1	-	-	-	-		23	-
grams per -	-	-	-	-	-	-	-	-
grams per -	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-		8	8
grams per -	-		0.14	0.002	0.003	-	-	-
grams per	0.03	-	0.017	0	0.001	-	14	-
grams per -	-	-	-	-	-	-	-	-
miles per g-	-		19.386	19.89	22.941	-	-	-
grams per	0.075	0.04	0.155	0.002	0.002	-	44	83
grams per -	-	-	-	-	-	-	-	-
grams per	1.15	1.15	-	-	-		43	43
grams per -	-		0.164	0.002	0.003	-	-	-
grams per -	-		457.002	448.734	389.001	-	-	-
miles per g-	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-		12	12
grams per	0.03	-	0.017	0	0.001	-	14	-
grams per	0.05	0.05	0.031	0.025	0.018	-	50	50
grams per -	-	-	-	-	-	-	-	-
miles per g-	-	-	-	-	-	-	-	-
grams per	0.05	-	-	-	-		6	-
grams per	391.4	-	-	-	-		96	-
grams per	0.015	0.008	0.004	0	0	-	7	13
grams per	11.1	-	-	-	-		42	-
grams per -	-	-	-	-	-	-	-	-
grams per -	-		0.149	0.002	0.002	-	-	-
grams per -	-	-	-	-	-	-	-	-
grams per -	-	-	-	-	-	-	-	-
grams per	3.4	1.7	1.849	0.003	0.035	-	12	24
grams per	0.2	0.2	-	-	-		20	20
grams per	161	-	-	-	-		93	-
grams per -	-	-	-	-	-	-	-	-
grams per	0.055	0.01	0.024	0.001	0.001	0	11	60
grams per -	-	-	-	-	-	-	-	-
grams per -	-	-	-	-	-	-	-	-
miles per g-	-	-	-	-	-	-	-	-
amp-hours	-		99	99	99	99	-	-
grams per -	-		213.5	101.5	193.1	114.8	-	-

ne Hydrocarbon + Nitrogen Oxides
es and ORVR

ne Hydrocarbon + Nitrogen Oxides			-	-	-		2	-
grams per	0.52	-						
grams per	0.03	0.02	0.013	0	0.004	0.001	14	20
grams per	0.011	0.004	0.001	0	0	0	0	0
grams per	0.04	0.027	-	-	-		0	0
amp-hours	-	-	-	-	-	-	-	-
miles per g	-		41.6	87.9	46.2	77.6	-	-
grams per	-		0.023	0.001	0.001	0	-	-
grams per	2.1	1	0.532	0.01	0.11	0.047	8	16
amp-hours	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
alifornia)								
grams per	-		0.028	0.002	0.003	0.001	-	-
grams per	11.1	-	-	-	-		1	-
grams per	0.03	-	0.005	0.001	0.002	0.001	7	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
alifornia)								
grams per	0.055	0.01	0.022	0.001	0.002	0.001	10	50
miles per g	-	-	-	-	-	-	-	-
ss and ORVR								
grams per	0.2	0.2	-	-	-		28	28
grams per	2.1	1	0.48	0.009	0.043	0.011	6	12
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-		220.3	106.1	187	112.7	-	-
grams per	11.1	-	-	-	-		1	-
sions								
grams per	161	-	-	-	-		92	-
grams per	-	-	-	-	-	-	-	-
amp-hours	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
alifornia)								
grams per	-	-	-	-	-	-	-	-
miles per g	-		40.4	84.1	47.7	79.1	-	-
grams per	-		0.025	0.001	0.004	0.001	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.04	0.027	-	-	-		0	0
amp-hours	-	-	-	-	-	-	-	-
grams per	0.65	0.35	-	-	-		33	61
grams per	0.03	-	0.004	0.001	0.002	0.001	7	-
grams per	0.03	0.02	0.015	0	0.002	0.001	14	20
ne Hydrocarbon + Nitrogen Oxides								
grams per	0.52	-	-	-	-		2	-
grams per	0.011	0.004	0.001	0	0	0	0	0
grams per	-		0.021	0.001	0.002	0.001	-	-
amp-hours	-		999	999	999	999	-	-
grams per	0.03	-	0.008	0	0	-	7	-
miles per g	-		26.15	25.51	29.9	-	-	-
grams per	2.1	1	0.646	0.132	0.106	-	12	24
grams per	0.65	0.35	-	-	-		37	68
grams per	-		0.024	0.001	0.001	-	-	-

alifornia) grams per	-	-	-	-	-	-	-	-
gs and ORVR grams per	0.2	0.2	-	-	-		22	22
alifornia) grams per	0.055	0.01	0.018	0.001	0.001	-	8	40
grams per	0.04	0.027	-	-	-		0	0
grams per	-	-	340.335	349.682	298.42	-	-	-
grams per	0.03	0.02	0.019	0.001	0.001	-	14	20
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	19.3	-	-	-	-		5	-
grams per	-	-	-	-	-	-	-	-
ssions grams per	309.3	-	-	-	-		91	-
grams per	0.011	0.004	0.001	0	0	-	0	0
grams per	-	-	0.017	0.001	0.001	-	-	-
ne Hydrocarbon + Nitrogen Oxides grams per	1.41	-	-	-	-		2	-
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	2.1	1	0.994	0.043	0.176	-	14	28
grams per	-	-	0.025	0	0.001	-	-	-
grams per	0.03	0.02	0.029	0	0.001	-	20	30
grams per	0.65	0.35	-	-	-		36	66
grams per	-	-	-	-	-	-	-	-
ne Hydrocarbon + Nitrogen Oxides grams per	0.62	-	-	-	-		5	-
grams per	11.1	-	-	-	-		3	-
grams per	0.04	0.027	-	-	-		0	0
grams per	-	-	332.139	339.984	288.887	-	-	-
grams per	-	-	0.018	0	0.001	-	-	-
grams per	-	-	-	-	-	-	-	-
ssions grams per	298.2	-	-	-	-		93	-
gs and ORVR grams per	0.2	0.2	-	-	-		16	16
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	26.75	26.25	30.87	-	-	-
grams per	0.011	0.004	0.001	0	0	-	0	0
alifornia) grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.03	-	0.008	0	0.001	-	7	-
alifornia) grams per	0.055	0.01	0.019	0	0.001	-	8	40
miles per g	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
miles per g	-	-	25.609	24.915	29.131	-	-	-
grams per	0.03	0.02	0.05	0	0.016	-	50	75
grams per	-	-	0.007	0	0.001	-	-	-
grams per	11.1	-	-	-	-		18	-
ne Hydrocarbon + Nitrogen Oxides grams per	0.62	-	-	-	-		6	-
grams per	0.65	0.65	-	-	-		50	50

miles per g	-	-	-	-	-	-	-	-
grams per	-	-	347.634	358.188	306.04	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	299.7	-	-	-	-	-	97	-
grams per	-	-	-	-	-	-	-	-
grams per	0.011	0.004	0.001	0	0	-	0	0
miles per g	-	-	-	-	-	-	-	-
grams per	0.04	0.027	-	-	-	-	5	8
grams per	-	-	-	-	-	-	-	-
grams per	-	-	0.037	0.001	0	-	-	-
grams per	2.1	1	0.52	0.075	0.257	-	11	22
grams per	-	-	0.044	0.001	0.001	-	-	-
grams per	0.055	0.01	0.039	0.001	0	-	15	80
grams per	0.2	0.2	-	-	-	-	7	7
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.05	0.05	0.019	0.001	0.001	-	10	10
grams per	0.011	0.004	0.001	0	0	-	0	0
grams per	-	-	0.019	0	0	-	-	-
grams per	0.04	0.027	-	-	-	-	8	12
grams per	-	-	-	-	-	-	-	-
grams per	0.03	-	0.009	0.001	0.001	-	7	-
miles per g	-	-	-	-	-	-	-	-
grams per	2.1	1	0.914	0.195	0.189	-	17	35
grams per	-	-	0.027	0.001	0.001	-	-	-
grams per	0.02	-	-	-	-	-	5	-
miles per g	-	-	25.923	25.531	29.361	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	11.1	-	-	-	-	-	38	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	342.853	349.346	303.746	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.055	0.01	0.02	0	0	-	8	40
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	299.6	-	-	-	-	-	96	-
grams per	0.075	0.04	0.149	0.007	0.01	-	51	95
grams per	-	-	0.155	0.008	0.015	-	-	-
grams per	0.067	0.067	-	-	-	-	3	3
grams per	297.1	-	-	-	-	-	90	-
miles per g	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.05	0.05	0.035	0.001	0.006	-	18	18
miles per g	-	-	28.047	26.402	31.938	-	-	-

xhaust Emissions
aliforniа)
ss and ORVR
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xhaust Emissions
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ne Hydrocarbon + Nitrogen Oxides
xhaust Emissions
aliforniа)
aliforniа)
aliforniа)

grams per	-	-	0.144	0.007	0.01	-	-	-	-
grams per	-	-	311.55	334.745	276.412	-	-	-	-
grams per	0.015	0.008	0.004	0	0	-	7	13	-
ne Hydrocarbon + Nitrogen Oxides grams per	0.05	-	-	-	-		5	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	3.4	1.7	2.012	0.051	0.219	-	15	30	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	0.013	0.002	0.005	-	-	-	-
grams per	11.1	-	-	-	-		22	-	-
grams per	0.03	-	0.013	0.001	0.002	-	14	-	-
grams per	-	-	0.138	0.01	0.007	-	-	-	-
alifornia) grams per	0.075	0.04	0.144	0.011	0.007	-	50	93	-
miles per g	-	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	0.15	0.011	0.009	-	-	-	-
grams per	0.05	0.05	0.028	0.001	0	-	12	12	-
grams per	3.4	1.7	1.799	0.062	0.103	-	13	26	-
grams per	-	-	315.535	340.428	278.603	-	-	-	-
grams per	0.015	0.008	0.004	0	0	-	7	13	-
grams per	11.1	-	-	-	-		13	-	-
grams per	-	-	-	-	-	-	-	-	-
ne Hydrocarbon + Nitrogen Oxides grams per	0.05	-	-	-	-		4	-	-
grams per	-	-	-	-	-	-	-	-	-
miles per g	-	-	27.979	26.195	31.998	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
xhaust Emissions grams per	297.1	-	-	-	-		91	-	-
grams per	0.067	0.067	-	-	-		3	3	-
grams per	-	-	0.072	0.015	0.01	-	-	-	-
grams per	0.015	0.008	0	0	0	-	0	0	-
grams per	-	-	0.048	0.004	0.002	-	-	-	-
ne Hydrocarbon + Nitrogen Oxides grams per	0.05	-	-	-	-		8	-	-
grams per	-	-	-	-	-	-	-	-	-
alifornia) grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.03	-	0.028	0.012	0.009	-	50	-	-
alifornia) grams per	0.075	0.04	0.048	0.004	0.002	-	18	33	-
grams per	-	-	-	-	-	-	-	-	-
grams per	11.1	-	-	-	-		1	-	-
xhaust Emissions grams per	250.8	-	-	-	-		90	-	-

grams per	0.01	0.01	0.001	0.001	0.002	-		10	10
miles per g	-	-	-	-	-	-	-	-	
grams per	3.4	1.7	0.674	0.012	0.016	-		5	9
grams per	-		297.856	266.13	239.135	-	-	-	
miles per g	-		34.02	38.23	42.54	-	-	-	
grams per	0.05	0.05	0.088	0.015	0.026	-		66	66
grams per	0.07	-	-	-	-			2	-
grams per	0.067	0.067	-	-	-			99	99
grams per	0.015	0.008	0	0	0	-		0	0
grams per	-	-	-	-	-	-	-	-	
miles per g	-	-	-	-	-	-	-	-	
grams per	0.07	-	-	-	-			38	-
grams per	-	-	-	-	-	-	-	-	
grams per	0.03	-	0.025	0.011	0.008	-		44	-
grams per	-		0.046	0.004	0.002	-	-	-	
grams per	3.4	1.7	0.648	0.05	0.042	-		6	11
grams per	-		0.067	0.014	0.009	-	-	-	
ne Hydrocarbon + Nitrogen Oxides									
grams per	0.05	-	-	-	-			46	-
xhaust Emission									
grams per	250.8	-	-	-	-			89	-
alifornia)									
grams per	0.075	0.04	0.046	0.004	0.002	-		16	30
grams per	-	-	-	-	-	-	-	-	
grams per	0.067	0.067	-	-	-			62	62
grams per	-		0.001	0.001	0.001	-	-	-	
grams per	-	-	-	-	-	-	-	-	
miles per g	-		34.598	39.256	43.53	-	-	-	
grams per	0.05	0.05	0.097	0.029	0.037	-		92	92
miles per g	-	-	-	-	-	-	-	-	
grams per	-		292.872	259.082	233.658	-	-	-	
grams per	11.1	-	-	-	-			1	-
alifornia)									
grams per	-	-	-	-	-	-	-	-	
not applic			99.99	99.99	99.99				
grams per			0.00094	0	0.00073				
not applic			99.99	99.99	99.99				
grams per			0						
miles per g			35.12855						
grams per			281.4140273	248.8252304					
grams per			0.00057	0.00058	0.00135				
grams per			0						
grams per	0.07		0.00041					1	
grams per	11.1		0.92724					1	
grams per	0.05		0.00936	0.00084	0.00242			54	
grams per			0.01065						
grams per			0.09345						
not applic			99.99						
grams per			99.99						

P-INFO-TC This test has particulate results; DT-IWRR=-2.330, B1=-4.112, B2=-1.912, B3=-1.805, DT-ASCR=-0.912, B1

P-INFO-TC This test has particulate results; DT-IWRR=-2.330, B1=-4.112, B2=-1.912, B3=-1.805, DT-ASCR=-0.912, B1

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P-INFO; DT-IWRR=-0.781, B1=-0.781, DT-ASCR=-0.544, B1=-0.544, DT-EER=-0.552, B1=-0.552 Standards entered

P-INFO; DT-IWRR=-0.781, B1=-0.781, DT-ASCR=-0.544, B1=-0.544, DT-EER=-0.552, B1=-0.552 Standards entered

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P-INFO; DT-IWRR=-0.781, B1=-0.781, DT-ASCR=-0.544, B1=-0.544, DT-EER=-0.552, B1=-0.552 Standards entered

P-INFO-TC This test has particulate results; DT-IWRR=-3.176, B1=-3.176, DT-ASCR=-1.755, B1=-1.755, DT-EER=-1.98

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P-INFO-TC This test has particulate results; DT-IWRR=-3.176, B1=-3.176, DT-ASCR=-1.755, B1=-1.755, DT-EER=-1.98

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INFO,TC This test has particulate results.,DT-IWRR=-3.176, B1=-3.176, DT-ASCR=-1.755, B1=-1.755, DT-EER=-1.98
INFO,TC variant accepted for pre to post test filter weighing >80 hours.TC This test has particulate results., DT-IW
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INFO,TC Variant accepted for pre to post test filter weighing >80 hours.TC This test has particulate results., DT-IW
INFO, DT-IWRR=2.728, B1=2.728, DT-ASCR=1.668, B1=1.668, DT-EER=0.561, B1=0.561 Standards entered
INFO,TC variant accepted for pre to post test filter weighing >80 hours.TC This test has particulate results., DT-IW
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INFO,TC variant accepted for pre to post test filter weighing >80 hours.TC This test has particulate results., DT-IW

miles per g	59.89785	-	-	-	-	-	-	-
not applica	99.99	-	-	-	-	-	-	-
grams per	0.00030	-	-	-	-	-	-	-
grams per	169.87913	-	-	-	-	-	-	-
grams per	0.075	0.11480	0.00222	0.00247	-	-	35	-
grams per	0.04366	-	-	-	-	-	-	-
grams per	321.47597	288.67439	298.71879	-	-	-	-	-
not applica	99.99	-	-	-	-	-	-	-
grams per	0	-	-	-	-	-	-	-
miles per g	51.34875	-	-	-	-	-	-	-
not applica	99.99	-	-	-	-	-	-	-
grams per	0.34914	0.12717	0.10895	-	-	-	-	-
grams per	0.00008	0.00004	0.00512	-	-	-	-	-
grams per	0.09848	-	-	-	-	-	-	-
grams per	0.00016	-	-	-	-	-	-	-
grams per	0.07763	-	-	-	-	-	-	-
grams per	14.1	0.01922	-	-	-	-	1	-
not applica	99.99	-	-	-	-	-	-	-
grams per	0.01113	-	-	-	-	-	-	-
grams per	0.00005	-	-	-	-	-	-	-
miles per g	31.18455	35.19749	39.27592	-	-	-	-	-
grams per	0.00216	-	-	-	-	-	-	-
grams per	0.10364	-	-	-	-	-	-	-
grams per	198.01473	-	-	-	-	-	-	-
not applica	99.99	99.99	99.99	-	-	-	-	-
not applica	99.99	99.99	99.99	-	-	-	-	-
grams per	0.11480	0.00222	0.00247	-	-	-	-	-
grams per	0.00216	-	-	-	-	-	-	-
grams per	296.31095	-	-	-	-	-	-	-
grams per	0.05	0.56747	0.01529	0.00802	-	-	256	-
grams per	0.25270	0.13445	0.11362	-	-	-	-	-
not applica	99.99	99.99	99.99	-	-	-	-	-
grams per	3.4	1.73493	0.01828	0.01691	-	-	11	-
not applica	99.99	-	-	-	-	-	-	-
miles per g	54.30295	-	-	-	-	-	-	-
grams per	0.04713	-	-	-	-	-	-	-
grams per	0.07	0.00090	-	-	-	-	2	-
not applica	99.99	-	-	-	-	-	-	-
grams per	0	-	-	-	-	-	-	-
not applica	99.99	-	-	-	-	-	-	-
grams per	0	-	-	-	-	-	-	-
grams per (California)	-	-	-	-	-	-	-	-
grams per	3.4	1.7	0.393	0	0.003	-	3	5
grams per (California)	0.075	0.04	0.046	0.002	0.008	-	18	33
grams per	0.05	0.05	0.1	0	0.009	-	46	46

ne Hydrocarbon + Nitrogen Oxides									
grams per	0.05	-	-	-	-	-	11	-	-
grams per	11.1	-	-	-	-	-	1	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
miles per g	-	-	37.982	39.362	43.023	-	-	-	-
grams per	-	-	0.046	0.002	0.008	-	-	-	-
grams per	0.067	0.067	-	-	-	-	0	0	-
grams per	-	-	0.116	0.021	0.072	-	-	-	-
grams per	-	-	266.914	258.439	236.277	-	-	-	-
grams per	0.01	0.01	0.001	0.001	0.001	-	10	10	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	0	0	0	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	239.6	-	-	-	-	-	91	-	-
grams per	0.075		0.99375	0	0.00225		16		
grams per	3.44		0.69334	0.01567	0.01823		5		
grams per			0.03572						
grams per			171.51258						
not applica			99.99						
miles per g			36.91156						
grams per			0.21439						
not applica			99.99	99.99	99.99				
grams per			0.00012						
grams per			0.12689						
not applica			99.99	99.99	99.99				
not applica			99.99						
not applica			99.99	99.99	99.99				
grams per			0.11170	0.02306	0.11422				
grams per			0.00095	0.00012	0.00002				
grams per			0.99375	0	0.00225				
grams per	0.07		0.02407				35		
miles per g			39.28416						
grams per			0						
not applica			99.99						
grams per			0.19755	0.02052	0.10840				
grams per			272.34720	261.10068	245.32078				
not applica			99.99						
not applica			99.99						
grams per			0.29254						
miles per g			37.19518	38.95845	41.41678				
grams per	0.05		0.97584	0.00060	0.03173		32		
not applica			99.99						
grams per			0.00012						

P_INFO_TC This test has particulate results, DT-IWRR=0.466, B1=0.808, B2=1.168, B3=0.053, DT-ASCR=0.667, B1=-0
P_INFO_TC This test has particulate results, DT-IWRR=0.466, B1=0.808, B2=1.168, B3=0.053, DT-ASCR=0.667, B1=-0
P_INFO_ DT-IWRR=1.387, B1=1.387, DT-ASCR=1.696, B1=1.696, DT-EER=0.013, B1=0.013 Standards entered
P_INFO_ DT-IWRR=1.387, B1=1.387, DT-ASCR=1.696, B1=1.696, DT-EER=0.013, B1=0.013 Standards entered
P_INFO_ DT-IWRR=1.387, B1=1.387, DT-ASCR=1.696, B1=1.696, DT-EER=0.013, B1=0.013 Standards entered
P_INFO_TC This test has particulate results, DT-IWRR=-4.334, B1=-4.334, DT-ASCR=-2.576, B1=-2.576, DT-EER=-2.01
P_INFO_TC This test has particulate results, DT-IWRR=-4.334, B1=-4.334, DT-ASCR=-2.576, B1=-2.576, DT-EER=-2.01
P_INFO_TC This test has particulate results, DT-IWRR=0.466, B1=0.808, B2=1.168, B3=0.053, DT-ASCR=0.667, B1=-0
P_INFO_ DT-IWRR=1.387, B1=1.387, DT-ASCR=1.696, B1=1.696, DT-EER=0.013, B1=0.013 Standards entered
P_INFO_TC This test has particulate results, DT-IWRR=-4.334, B1=-4.334, DT-ASCR=-2.576, B1=-2.576, DT-EER=-2.01
P_INFO_TC This test has particulate results, DT-IWRR=0.466, B1=0.808, B2=1.168, B3=0.053, DT-ASCR=0.667, B1=-0
P_INFO_TC This test has particulate results, DT-IWRR=-4.334, B1=-4.334, DT-ASCR=-2.576, B1=-2.576, DT-EER=-2.01
P_INFO_TC This test has particulate results, DT-IWRR=0.466, B1=0.808, B2=1.168, B3=0.053, DT-ASCR=0.667, B1=-0
P_INFO_TC This test has particulate results, DT-IWRR=0.466, B1=0.808, B2=1.168, B3=0.053, DT-ASCR=0.667, B1=-0
P_INFO_TC This test has particulate results, DT-IWRR=0.466, B1=0.808, B2=1.168, B3=0.053, DT-ASCR=0.667, B1=-0
P_INFO_TC This test has particulate results, DT-IWRR=0.466, B1=0.808, B2=1.168, B3=0.053, DT-ASCR=0.667, B1=-0
P_INFO_ DT-IWRR=1.387, B1=1.387, DT-ASCR=1.696, B1=1.696, DT-EER=0.013, B1=0.013 Standards entered
P_INFO_ DT-IWRR=1.387, B1=1.387, DT-ASCR=1.696, B1=1.696, DT-EER=0.013, B1=0.013 Standards entered
P_INFO_ DT-IWRR=1.387, B1=1.387, DT-ASCR=1.696, B1=1.696, DT-EER=0.013, B1=0.013 Standards entered
P_INFO_TC This test has particulate results, DT-IWRR=-4.334, B1=-4.334, DT-ASCR=-2.576, B1=-2.576, DT-EER=-2.01
P_INFO_TC This test has particulate results, DT-IWRR=0.466, B1=0.808, B2=1.168, B3=0.053, DT-ASCR=0.667, B1=-0
P_INFO_TC This test has particulate results, DT-IWRR=0.466, B1=0.808, B2=1.168, B3=0.053, DT-ASCR=0.667, B1=-0
P_INFO_ DT-IWRR=1.387, B1=1.387, DT-ASCR=1.696, B1=1.696, DT-EER=0.013, B1=0.013 Standards entered
P_INFO_TC This test has particulate results, DT-IWRR=-4.334, B1=-4.334, DT-ASCR=-2.576, B1=-2.576, DT-EER=-2.01
P_INFO_TC This test has particulate results, DT-IWRR=-4.334, B1=-4.334, DT-ASCR=-2.576, B1=-2.576, DT-EER=-2.01
P_INFO_TC This test has particulate results, DT-IWRR=0.466, B1=0.808, B2=1.168, B3=0.053, DT-ASCR=0.667, B1=-0
P_INFO_TC This test has particulate results, DT-IWRR=0.466, B1=0.808, B2=1.168, B3=0.053, DT-ASCR=0.667, B1=-0
P_INFO_ DT-IWRR=1.387, B1=1.387, DT-ASCR=1.696, B1=1.696, DT-EER=0.013, B1=0.013 Standards entered
P_INFO_ DT-IWRR=1.387, B1=1.387, DT-ASCR=1.696, B1=1.696, DT-EER=0.013, B1=0.013 Standards entered

B-INFO: DT-IWRR=1.387, B1=1.387, DT-ASCR=1.696, B1=1.696, DT-EER=0.013, B1=0.013 Standards entered
B-INFO:TC This test has particulate results, DT-IWRR=-4.334, B1=-4.334, DT-ASCR=-2.576, B1=-2.576, DT-EER=-2.01
B-INFO:TC This test has particulate results, DT-IWRR=-4.334, B1=-4.334, DT-ASCR=-2.576, B1=-2.576, DT-EER=-2.01
B-INFO: DT-IWRR=1.387, B1=1.387, DT-ASCR=1.696, B1=1.696, DT-EER=0.013, B1=0.013 Standards entered
B-INFO:TC This test has particulate results, DT-IWRR=-4.334, B1=-4.334, DT-ASCR=-2.576, B1=-2.576, DT-EER=-2.01
B-INFO:TC This test has particulate results, DT-IWRR=-4.334, B1=-4.334, DT-ASCR=-2.576, B1=-2.576, DT-EER=-2.01
B-INFO:TC This test has particulate results, DT-IWRR=-4.334, B1=-4.334, DT-ASCR=-2.576, B1=-2.576, DT-EER=-2.01

grams per	-		0.01221	-	-	-	-	-	-
grams per	-		0.09331	-	-	-	-	-	-
grams per	11.1	-	0.10396	-	-	-	1	-	-
grams per	-		0.03850	-	-	-	-	-	-
grams per	-		0.09331	-	-	-	-	-	-
grams per	-		0	-	-	-	-	-	-
grams per	-		281.6744	-	-	-	-	-	-
grams per	-		0.053	0.004	0.009	-	-	-	-
grams per	0.01	0.01	0.002	0.001	0.001	-		10	10
grams per	0.075	0.04	0.053	0.004	0.009	-		20	38
grams per	11.1	-	-	-	-	-		1	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-		0.119	0.02	0.076	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
miles per g	-		37.352	38.41	42.09	-	-	-	-
grams per	239	239	-	-	-		94	94	-
grams per	0.05	0.05	0.116	0	0.01	-		54	54
grams per	0.2	-	0.077	0.019	0.078	-		24	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	3.4	1.7	0.443	0.002	0.004	-		3	6
grams per	-		0	0	0	-	-	-	-
grams per	-		271.343	264.844	241.504	-	-	-	-
grams per	0.07	-	-	-	-		40	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.65	-	-	-	-		12	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-		0	0	-
grams per	-		284.498	277.752	256.244	-	-	-	-
grams per	-		0.071	0.004	0.009	-	-	-	-
grams per	3.4	1.7	0.746	0	0.002	-		5	10
grams per	0.75	0.04	0.071	0.004	0.009	-		3	48
grams per	-	-	-	-	-	-	-	-	-
grams per	11.1	-	-	-	-		1	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	240.2	-	-	-	-		94	-	-
grams per	0.2	-	0.08	0.027	0.069	-		25	-
grams per	0.65	-	-	-	-		11	-	-
grams per	0.05	0.05	0.042	0.001	0.019	-		28	28
grams per	0.015	0.008	0	0	0	-		0	0
grams per	-	-	-	-	-	-	-	-	-
miles per g	-		35.564	36.623	39.675	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-		2	2	-

grams per	-	-	0.141	0.027	0.069	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
alifornia)									
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
not applic	-	-	99.99	-	-	-	-	-	-
grams per	-	-	0.00099	-	-	-	-	-	-
grams per	-	-	0.00127	-	-	-	-	-	-
grams per	-	-	1.61603	0.09547	0.12576	-	-	-	-
grams per	-	-	0.06536	0	0.00065	-	-	-	-
grams per	-	-	324.28600	-	-	-	-	-	-
grams per	-	-	0.00103	-	-	-	-	-	-
grams per	-	-	0.12038	-	-	-	-	-	-
grams per	-	-	0.03003	-	-	-	-	-	-
grams per	-	-	0.00778	-	-	-	-	-	-
miles per g	-	-	27.38153	-	-	-	-	-	-
grams per	-	-	1.19758	-	-	-	-	-	-
miles per g	-	-	40.25600	-	-	-	-	-	-
grams per	-	-	0.06285	0	0.00065	-	-	-	-
grams per	-	-	0.00615	0	0.00160	-	-	-	-
grams per	-	-	0.00212	-	-	-	-	-	-
not applic	-	-	99.99	-	-	-	-	-	-
grams per	-	-	0.00142	-	-	-	-	-	-
grams per	-	-	218.27021	-	-	-	-	-	-
exhaust emissions	-	-	0	-	-	-	-	-	-
not applic	-	-	99.99	99.99	99.99	-	-	-	-
miles per g	-	-	25.76394	26.11718	30.31578	-	-	-	-
grams per	-	-	0.07234	0.00005	0.00226	-	-	-	-
grams per	-	-	0.00977	-	-	-	-	-	-
grams per	-	-	0.00031	-	-	-	-	-	-
not applic	-	-	99.99	99.99	99.99	-	-	-	-
not applic	-	-	99.99	-	-	-	-	-	-
grams per	-	-	0.00000	-	-	-	-	-	-
not applic	-	-	99.99	-	-	-	-	-	-
= 0.161862; QC Note: All Automated Quality Checks Passed									
grams per	-	-	343.90333341.83350294.41562	-	-	-	-	-	-
grams per	-	-	0.04019	0.00037	0.00176	-	-	-	-
not applic	-	-	99.99	99.99	99.99	-	-	-	-
not applic	-	-	99.99	-	-	-	-	-	-
not applic	-	-	99.99	-	-	-	-	-	-
grams per	-	-	0.04795	0.00027	0.00368	-	-	-	-
grams per	-	-	0.05271	-	-	-	-	-	-
miles per g	-	-	25.32599	26.64530	30.77991	-	-	-	-
grams per	-	-	321.61720	-	-	-	-	-	-
grams per	-	-	0.00184	-	-	-	-	-	-
not applic	-	-	99.99	99.99	99.99	-	-	-	-

THER INFO.: DT-IWRR=-3.536, B1=-3.536, DT-ASCR=-1.892, B1=-1.892, DT-EER=-1.773, B1=-1.773
THER INFO.: DT-IWRR=-0.253, B1=-0.253, DT-ASCR=-0.322, B1=-0.322, DT-EER=-0.895, B1=-0.895
THER INFO.: DT-IWRR=-0.253, B1=-0.253, DT-ASCR=-0.322, B1=-0.322, DT-EER=-0.895, B1=-0.895
THER INFO.: DT-IWRR=2.972, B1=1.832, B2=3.954, B3=1.907, DT-ASCR=1.859, B1=0.987, B2=2.418, B3=0.888, DT-E
THER INFO.: DT-IWRR=2.972, B1=1.832, B2=3.954, B3=1.907, DT-ASCR=1.859, B1=0.987, B2=2.418, B3=0.888, DT-E
THER INFO.: DT-IWRR=-3.536, B1=-3.536, DT-ASCR=-1.892, B1=-1.892, DT-EER=-1.773, B1=-1.773
THER INFO.: DT-IWRR=-0.253, B1=-0.253, DT-ASCR=-0.322, B1=-0.322, DT-EER=-0.895, B1=-0.895
THER INFO.: DT-IWRR=-0.253, B1=-0.253, DT-ASCR=-0.322, B1=-0.322, DT-EER=-0.895, B1=-0.895
THER INFO.: DT-IWRR=-3.536, B1=-3.536, DT-ASCR=-1.892, B1=-1.892, DT-EER=-1.773, B1=-1.773
THER INFO.: DT-IWRR=-3.536, B1=-3.536, DT-ASCR=-1.892, B1=-1.892, DT-EER=-1.773, B1=-1.773
THER INFO.: DT-IWRR=-3.536, B1=-3.536, DT-ASCR=-1.892, B1=-1.892, DT-EER=-1.773, B1=-1.773
THER INFO.: DT-IWRR=-0.253, B1=-0.253, DT-ASCR=-0.322, B1=-0.322, DT-EER=-0.895, B1=-0.895
THER INFO.: DT-IWRR=2.972, B1=1.832, B2=3.954, B3=1.907, DT-ASCR=1.859, B1=0.987, B2=2.418, B3=0.888, DT-E
THER INFO.: DT-IWRR=2.972, B1=1.832, B2=3.954, B3=1.907, DT-ASCR=1.859, B1=0.987, B2=2.418, B3=0.888, DT-E
THER INFO.: DT-IWRR=-3.536, B1=-3.536, DT-ASCR=-1.892, B1=-1.892, DT-EER=-1.773, B1=-1.773
THER INFO.: DT-IWRR=-0.253, B1=-0.253, DT-ASCR=-0.322, B1=-0.322, DT-EER=-0.895, B1=-0.895
THER INFO.: DT-IWRR=-0.253, B1=-0.253, DT-ASCR=-0.322, B1=-0.322, DT-EER=-0.895, B1=-0.895
THER INFO.: DT-IWRR=-0.253, B1=-0.253, DT-ASCR=-0.322, B1=-0.322, DT-EER=-0.895, B1=-0.895
THER INFO.: DT-IWRR=2.972, B1=1.832, B2=3.954, B3=1.907, DT-ASCR=1.859, B1=0.987, B2=2.418, B3=0.888, DT-E
THER INFO.: DT-IWRR=2.972, B1=1.832, B2=3.954, B3=1.907, DT-ASCR=1.859, B1=0.987, B2=2.418, B3=0.888, DT-E
THER INFO.: DT-IWRR=2.972, B1=1.832, B2=3.954, B3=1.907, DT-ASCR=1.859, B1=0.987, B2=2.418, B3=0.888, DT-E
THER INFO.: DT-IWRR=-3.536, B1=-3.536, DT-ASCR=-1.892, B1=-1.892, DT-EER=-1.773, B1=-1.773
THER INFO.: DT-IWRR=-3.536, B1=-3.536, DT-ASCR=-1.892, B1=-1.892, DT-EER=-1.773, B1=-1.773
THER INFO.: DT-IWRR=-0.253, B1=-0.253, DT-ASCR=-0.322, B1=-0.322, DT-EER=-0.895, B1=-0.895
P INFO.: DT-IWRR=1.516, B1=2.839, B2=2.530, B3=1.471, DT-ASCR=1.237, B1=1.796, B2=1.789, B3=-0.794, DT-EER
P INFO.: DT-IWRR=5.217, B1=5.217, DT-ASCR=3.655, B1=3.655, DT-EER=-0.732, B1=-0.732 Standards entered
P INFO.: DT-IWRR=1.516, B1=2.839, B2=2.530, B3=1.471, DT-ASCR=1.237, B1=1.796, B2=1.789, B3=-0.794, DT-EER
P INFO.: DT-IWRR=-2.597, B1=-2.597, DT-ASCR=-1.608, B1=-1.608, DT-EER=-0.991, B1=-0.991 Standards entered
P INFO.: DT-IWRR=-2.597, B1=-2.597, DT-ASCR=-1.608, B1=-1.608, DT-EER=-0.991, B1=-0.991 Standards entered
P INFO.: DT-IWRR=1.516, B1=2.839, B2=2.530, B3=1.471, DT-ASCR=1.237, B1=1.796, B2=1.789, B3=-0.794, DT-EER

R INFO: DT-IWRR=5.217, B1=5.217, DT-ASCR=3.655, B1=3.655, DT-EER=-0.732, B1=-0.732 Standards entered
not applic- 99.99-
R INFO: DT-IWRR=5.217, B1=5.217, DT-ASCR=3.655, B1=3.655, DT-EER=-0.732, B1=-0.732 Standards entered
grams per 0.04 - 0.00313 -
R INFO: DT-IWRR=-2.597, B1=-2.597, DT-ASCR=-1.608, B1=-1.608, DT-EER=-0.991, B1=-0.991 Standards entered
grams per - 0.00844 -
R INFO: DT-IWRR=-2.597, B1=-2.597, DT-ASCR=-1.608, B1=-1.608, DT-EER=-0.991, B1=-0.991 Standards entered
miles per g- 27.73386 -
R INFO: DT-IWRR=-2.597, B1=-2.597, DT-ASCR=-1.608, B1=-1.608, DT-EER=-0.991, B1=-0.991 Standards entered
grams per 11.1 - 0.29742 -
R INFO: DT-IWRR=-2.597, B1=-2.597, DT-ASCR=-1.608, B1=-1.608, DT-EER=-0.991, B1=-0.991 Standards entered
grams per - 0.01077 -
R INFO: DT-IWRR=1.516, B1=2.839, B2=2.530, B3=-1.471, DT-ASCR=1.237, B1=1.796, B2=1.789, B3=-0.794, DT-EER
grams per 0.03 - 0.00636 - 0.00285 -
R INFO: DT-IWRR=1.516, B1=2.839, B2=2.530, B3=-1.471, DT-ASCR=1.237, B1=1.796, B2=1.789, B3=-0.794, DT-EER
not applic- 99.99 - 99.99 -
R INFO: DT-IWRR=5.217, B1=5.217, DT-ASCR=3.655, B1=3.655, DT-EER=-0.732, B1=-0.732 Standards entered
not applic- 99.99 -
R INFO: DT-IWRR=-2.597, B1=-2.597, DT-ASCR=-1.608, B1=-1.608, DT-EER=-0.991, B1=-0.991 Standards entered
grams per - 0.00700 -
R INFO: DT-IWRR=-2.597, B1=-2.597, DT-ASCR=-1.608, B1=-1.608, DT-EER=-0.991, B1=-0.991 Standards entered
not applic- 99.99 -
R INFO: DT-IWRR=5.217, B1=5.217, DT-ASCR=3.655, B1=3.655, DT-EER=-0.732, B1=-0.732 Standards entered
not applic- 99.99 -
R INFO: DT-IWRR=5.217, B1=5.217, DT-ASCR=3.655, B1=3.655, DT-EER=-0.732, B1=-0.732 Standards entered
grams per - 0.00301 -
R INFO: DT-IWRR=5.217, B1=5.217, DT-ASCR=3.655, B1=3.655, DT-EER=-0.732, B1=-0.732 Standards entered
grams per - 213.83031 -
R INFO: DT-IWRR=-2.597, B1=-2.597, DT-ASCR=-1.608, B1=-1.608, DT-EER=-0.991, B1=-0.991 Standards entered
not applic- 99.99 -
R INFO: DT-IWRR=1.516, B1=2.839, B2=2.530, B3=-1.471, DT-ASCR=1.237, B1=1.796, B2=1.789, B3=-0.794, DT-EER
grams per - 350.3477439 - 138.781289 - 94.679 -
R INFO: DT-IWRR=1.516, B1=2.839, B2=2.530, B3=-1.471, DT-ASCR=1.237, B1=1.796, B2=1.789, B3=-0.794, DT-EER
not applic- 99.99 - 99.99 -
R INFO: DT-IWRR=1.516, B1=2.839, B2=2.530, B3=-1.471, DT-ASCR=1.237, B1=1.796, B2=1.789, B3=-0.794, DT-EER
grams per - 0.03873 - 0.00103 -
R INFO: DT-IWRR=5.217, B1=5.217, DT-ASCR=3.655, B1=3.655, DT-EER=-0.732, B1=-0.732 Standards entered
grams per - 0.00037 -
R INFO: DT-IWRR=5.217, B1=5.217, DT-ASCR=3.655, B1=3.655, DT-EER=-0.732, B1=-0.732 Standards entered
miles per g- 41.75162 -
R INFO: DT-IWRR=5.217, B1=5.217, DT-ASCR=3.655, B1=3.655, DT-EER=-0.732, B1=-0.732 Standards entered
grams per - 0 -
R INFO: DT-IWRR=-2.597, B1=-2.597, DT-ASCR=-1.608, B1=-1.608, DT-EER=-0.991, B1=-0.991 Standards entered
grams per - 0.00673 -
R INFO: DT-IWRR=1.516, B1=2.839, B2=2.530, B3=-1.471, DT-ASCR=1.237, B1=1.796, B2=1.789, B3=-0.794, DT-EER
grams per - 0.00591 - 0.00044 - 0.00285 -
R INFO: DT-IWRR=1.516, B1=2.839, B2=2.530, B3=-1.471, DT-ASCR=1.237, B1=1.796, B2=1.789, B3=-0.794, DT-EER
grams per 2.1 - 1.360008 - 0.04027 - 0.13963 - 17 -
R INFO: DT-IWRR=5.217, B1=5.217, DT-ASCR=3.655, B1=3.655, DT-EER=-0.732, B1=-0.732 Standards entered
grams per - 0.00289 -
R INFO: DT-IWRR=1.516, B1=2.839, B2=2.530, B3=-1.471, DT-ASCR=1.237, B1=1.796, B2=1.789, B3=-0.794, DT-EER
grams per 0.055 - 0.04030 - 0 - 0.00103 - 16 -
R INFO: DT-IWRR=5.217, B1=5.217, DT-ASCR=3.655, B1=3.655, DT-EER=-0.732, B1=-0.732 Standards entered
grams per - 0.00324 -
R INFO: DT-IWRR=-2.597, B1=-2.597, DT-ASCR=-1.608, B1=-1.608, DT-EER=-0.991, B1=-0.991 Standards entered
not applic- 99.99 -

grams per	-		0.028	0.001	0.002	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-		348.332	340.122	293.863	-	-	-	-
grams per	11.1	-	-	-	-		2	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	0.055	0.01	0.029	0.001	0.002	-	13	70	-
grams per	0.011	0.004	0.001	0	0	-	0	0	-
grams per	-		0.007	0	0.002	-	-	-	-
grams per	0.03	0.02	0.007	0	0.003	-	7	10	-
grams per	0.04	0.027	-	-	-		3	4	-
grams per	-	-	-	-	-	-	-	-	-
grams per	309.1	-	-	-	-		90	-	-
grams per	0.2	0.2	-	-	-		10	10	-
miles per g	-		25.52	26.24	30.36	-	-	-	-
grams per	2.1	1	0.875	0.033	0.095	-	11	23	-
grams per	-		0.034	0.001	0.003	-	-	-	-

alifornia)
xhaust Emissions
ss and ORVR

ne, Hydrocarbon + Nitrogen Oxides									
grams per	0.02	-	-	-	-	-	2	-	-
grams per	0.65	0.35	-	-	-	-	40	74	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
aliforniа)									
grams per	-	-	-	-	-	-	-	-	-
grams per	0.055	-	0.03336	0	0.00084	-	13	-	-
grams per			0.00181						
not applicable			99.99						
grams per			0.00862						
grams per	0.03	-	0.00737	0	0.00364	-	9	-	-
miles per g			39.43112						
grams per			226.26697						
grams per			0.00024						
grams per	11.6		0.30990				3		
grams per			0.03207	0	0.00078	-			
grams per			348.28970.333.031442960.60570						
not applicable			99.99						
not applicable			99.99						
not applicable			99.99	99.99	99.99				
not applicable			99.99	99.99	99.99				
grams per	0.04	-	0.00306	-	-	-	8	-	-
grams per			0.00062						
miles per g			26.49823						
not applicable			99.99						
grams per			0.00060						
grams per			0.15468						
grams per			0.01714	0.00037	0.00268				
not applicable			99.99						
grams per			336.54718						
grams per			0.00828						
grams per	2.1	-	1.01547	0.06281	0.08488	-	13	-	-
not applicable			99.99	99.99	99.99				
miles per g			25.51839	26.00358	30.09829				
grams per			0.03870	0.00030	0.00327				
grams per			0.00085						
grams per			0						
grams per			0.03513						
not applicable			99.99						
grams per			0.00397						
grams per	0.011	0.004	0.001	0	0	-	0	0	-
miles per g	-	-	25.948	26.711	30.72	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	0.04	0.027	-	-	-	-	8	12	-
aliforniа)									
grams per	0.055	0.01	0.03	0	0.001	-	13	70	-
grams per	-	-	-	-	-	-	-	-	-

R INFO: DT-IWRR=-0.563, B1=0.411, B2=0.521, B3=-1.382, DT-ASCR=-0.164, B1=0.407, B2=-0.028, B3=-0.992, DT-E
R INFO: DT-IWRR=-2.651, B1=-2.651, DT-ASCR=-1.715, B1=-1.715, DT-EER=-1.421, B1=-1.421 Standards entered
R INFO: DT-IWRR=-2.651, B1=-2.651, DT-ASCR=-1.715, B1=-1.715, DT-EER=-1.421, B1=-1.421 Standards entered
R INFO: DT-IWRR=-2.651, B1=-2.651, DT-ASCR=-1.715, B1=-1.715, DT-EER=-1.421, B1=-1.421 Standards entered
R INFO: DT-IWRR=-0.563, B1=0.411, B2=0.521, B3=-1.382, DT-ASCR=-0.164, B1=0.407, B2=-0.028, B3=-0.992, DT-E
R INFO: DT-IWRR=3.290, B1=3.290, DT-ASCR=2.554, B1=2.554, DT-EER=-0.151, B1=-0.151 Standards entered
R INFO: DT-IWRR=3.290, B1=3.290, DT-ASCR=2.554, B1=2.554, DT-EER=-0.151, B1=-0.151 Standards entered
R INFO: DT-IWRR=3.290, B1=3.290, DT-ASCR=2.554, B1=2.554, DT-EER=-0.151, B1=-0.151 Standards entered
R INFO: DT-IWRR=-2.651, B1=-2.651, DT-ASCR=-1.715, B1=-1.715, DT-EER=-1.421, B1=-1.421 Standards entered
R INFO: DT-IWRR=-0.563, B1=0.411, B2=0.521, B3=-1.382, DT-ASCR=-0.164, B1=0.407, B2=-0.028, B3=-0.992, DT-E
R INFO: DT-IWRR=-0.563, B1=0.411, B2=0.521, B3=-1.382, DT-ASCR=-0.164, B1=0.407, B2=-0.028, B3=-0.992, DT-E
R INFO: DT-IWRR=3.290, B1=3.290, DT-ASCR=2.554, B1=2.554, DT-EER=-0.151, B1=-0.151 Standards entered
R INFO: DT-IWRR=-2.651, B1=-2.651, DT-ASCR=-1.715, B1=-1.715, DT-EER=-1.421, B1=-1.421 Standards entered
R INFO: DT-IWRR=-0.563, B1=0.411, B2=0.521, B3=-1.382, DT-ASCR=-0.164, B1=0.407, B2=-0.028, B3=-0.992, DT-E
R INFO: DT-IWRR=-0.563, B1=0.411, B2=0.521, B3=-1.382, DT-ASCR=-0.164, B1=0.407, B2=-0.028, B3=-0.992, DT-E
R INFO: DT-IWRR=3.290, B1=3.290, DT-ASCR=2.554, B1=2.554, DT-EER=-0.151, B1=-0.151 Standards entered
R INFO: DT-IWRR=3.290, B1=3.290, DT-ASCR=2.554, B1=2.554, DT-EER=-0.151, B1=-0.151 Standards entered
R INFO: DT-IWRR=-2.651, B1=-2.651, DT-ASCR=-1.715, B1=-1.715, DT-EER=-1.421, B1=-1.421 Standards entered
R INFO: DT-IWRR=3.290, B1=3.290, DT-ASCR=2.554, B1=2.554, DT-EER=-0.151, B1=-0.151 Standards entered
R INFO: DT-IWRR=3.290, B1=3.290, DT-ASCR=2.554, B1=2.554, DT-EER=-0.151, B1=-0.151 Standards entered
R INFO: DT-IWRR=3.290, B1=3.290, DT-ASCR=2.554, B1=2.554, DT-EER=-0.151, B1=-0.151 Standards entered
R INFO: DT-IWRR=-0.563, B1=0.411, B2=0.521, B3=-1.382, DT-ASCR=-0.164, B1=0.407, B2=-0.028, B3=-0.992, DT-E
R INFO: DT-IWRR=3.290, B1=3.290, DT-ASCR=2.554, B1=2.554, DT-EER=-0.151, B1=-0.151 Standards entered
R INFO: DT-IWRR=-2.651, B1=-2.651, DT-ASCR=-1.715, B1=-1.715, DT-EER=-1.421, B1=-1.421 Standards entered
R INFO: DT-IWRR=-2.651, B1=-2.651, DT-ASCR=-1.715, B1=-1.715, DT-EER=-1.421, B1=-1.421 Standards entered
R INFO: DT-IWRR=-0.563, B1=0.411, B2=0.521, B3=-1.382, DT-ASCR=-0.164, B1=0.407, B2=-0.028, B3=-0.992, DT-E
R INFO: DT-IWRR=-0.563, B1=0.411, B2=0.521, B3=-1.382, DT-ASCR=-0.164, B1=0.407, B2=-0.028, B3=-0.992, DT-E
R INFO: DT-IWRR=-0.563, B1=0.411, B2=0.521, B3=-1.382, DT-ASCR=-0.164, B1=0.407, B2=-0.028, B3=-0.992, DT-E
R INFO: DT-IWRR=3.290, B1=3.290, DT-ASCR=2.554, B1=2.554, DT-EER=-0.151, B1=-0.151 Standards entered
R INFO: DT-IWRR=3.290, B1=3.290, DT-ASCR=2.554, B1=2.554, DT-EER=-0.151, B1=-0.151 Standards entered
R INFO: DT-IWRR=-2.651, B1=-2.651, DT-ASCR=-1.715, B1=-1.715, DT-EER=-1.421, B1=-1.421 Standards entered
R INFO: DT-IWRR=-2.651, B1=-2.651, DT-ASCR=-1.715, B1=-1.715, DT-EER=-1.421, B1=-1.421 Standards entered
R INFO: DT-IWRR=-2.651, B1=-2.651, DT-ASCR=-1.715, B1=-1.715, DT-EER=-1.421, B1=-1.421 Standards entered

grams per	-	-	-	-	-	-	-	-
grams per	0.04	-	0.008	0	0.002	-	5	-
grams per	0.03	0.02	0.004	0	0.002	-	4	5
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
ne Hydrocarbon + Nitrogen Oxides								
grams per	0.62	-	-	-	-		2	-
alifornia)								
grams per	-	-	-	-	-	-	-	-
xhaust Emissions								
grams per	300.2	-	-	-	-		94	-
grams per	-		342.404	334.076	290.422	-	-	-
grams per	11.1	-	-	-	-		8	-
grams per	-		0.029	0	0.001	-	-	-
grams per	-		0.036	0.001	0.003	-	-	-
grams per	2.1	1	0.967	0.084	0.107	-	13	28
grams per	-	-	-	-	-	-	-	-
miles per g	-		25.898	27.255	31.385	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	0.04	-	0.006	0.001	0.003	-	5	-
grams per	0.011	0.004	0.001	0	0	-	0	0
grams per	2.1	1	0.691	0.056	0.211	-	11	23
grams per	11.1	-	-	-	-		4	-
grams per	-		0.023	0	0.003	-	-	-
ne Hydrocarbon + Nitrogen Oxides								
grams per	0.62	-	-	-	-		2	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.04	0.027	-	-	-		8	12
grams per	0.03	0.02	0.007	0	0.001	-	7	10
alifornia)								
grams per	0.055	0.01	0.024	0	0.003	-	11	60
grams per	-	-	-	-	-	-	-	-
grams per	-		343.531	327.45	284.094	-	-	-
xhaust Emissions								
grams per	300.2	-	-	-	-		92	-
grams per	-		0.027	0.001	0.006	-	-	-
alifornia)								
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-		0.03	0.001	0.003	-	-	-
grams per	-		333.226	381.111	296.703	-	-	-
grams per	-		0.025	0.001	0.001	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	2.1	1	0.65	0.074	0.096	-	10	20
alifornia)								
grams per	0.055	0.01	0.026	0.001	0.001	-	11	60
ne Hydrocarbon + Nitrogen Oxides								
grams per	0.62	-	-	-	-		3	-
ssions								
grams per	304.9	-	-	-	-		93	-
miles per g	-	-	-	-	-	-	-	-
grams per	0.05	0.02	0.007	0	0.006	-	6	15
grams per	0.011	0.004	0.001	0	0	-	0	0

grams per	-	-	-	-	-	-	-	-
grams per	0.067	0.027	-	-	-		5	12
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
miles per g	-		26.7	23.42	30.07	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.04	-	0.006	0	0.002	-	5	-
grams per	11.1	-	-	-	-		3	-
miles per g	-		26.756	23.921	30.281	-	-	-
grams per	3.4	1	0.733	0.094	0.096	-	7	23
grams per	0.055	0.01	0.036	0	0	-	15	80
grams per	-		0.035	0	0	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.05	0.02	0.006	0	0.004	-	4	10
grams per	0.015	0.004	0.001	0	0	-	0	0
grams per	11.1	-	-	-	-		3	-
miles per g	-	-	-	-	-	-	-	-
grams per	0.82	-		-	-		2	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-		332.325	372.985	294.598	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	304	-	-	-	-		92	-
grams per	0.04	-	0.004	0	0.001	-	3	-
grams per	0.027	-	-	-	-		8	-
grams per	-		0.039	0.001	0.002	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	304.7	-	-	-	-		92	-
grams per	2.5	-	-	-	-		7	-
grams per	-		342.119	341.884	297.918	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
miles per g	-		25.71	26.059	29.861	-	-	-
grams per	-		0.291	0.001	0.012	-	-	-
grams per	0.015	-	0.009	0	0	-	14	-
grams per	0.05	-	0.179	0.001	0.01	-	80	-
grams per	0.067	-	-	-	-		33	-
grams per	0.2	-	-	-	-		13	-
grams per	0.075	-	0.303	0.002	0.012	-	90	-
grams per	3.4	-	2.229	0.045	0.288	-	17	-
grams per	-	-	-	-	-	-	-	-
grams per	0.04	-	0.021	0	0.004	-	15	-
miles per g	-	-	-	-	-	-	-	-

grams per	11.1	-	-	-	-	-		3	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-	-	0.31	0.002	0.016	-	-	-	-
ne Hydrocarbon + Nitrogen Oxides									
grams per	0.65	-	-	-	-	-		10	-
grams per	-	-	-	-	-	-	-	-	-
alifornia)									
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	0.296	0.002	0.006	-	-	-	-
alifornia)									
grams per	-	-	-	-	-	-	-	-	-
grams per	0.04	-	0.018	0	0.002	-		10	-
grams per	-	-	335.982	337.089	294.411	-	-	-	-
grams per	11.1	-	-	-	-			6	-
ne Hydrocarbon + Nitrogen Oxides									
grams per	0.65	-	-	-	-			9	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.067	-	-	-	-			8	-
grams per	3.4	-	2.025	0.063	0.13	-		15	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	0.28	0.002	0.005	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.65	-	-	-	-			46	-
ss and ORVR	0.2	0.2	-	-	-			22	-
grams per	0.075	-	0.291	0.002	0.005	-		84	-
alifornia)									
grams per	-	-	-	-	-	-	-	-	-
grams per	319.4	-	-	-	-			89	-
ssions									
grams per	0.015	-	0.008	0	0	-		14	-
grams per	0.05	-	0.144	0	0.003	-		62	-
miles per g	-		26.25	26.47	30.3	-	-	-	-
alifornia)									
grams per	0.075	-	0.3	0.001	0.005	-		86	-
grams per	0.067	-	-	-	-			3	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	0.05	-	0.188	0	0.023	-		90	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	3.4	-	2.192	0.031	0.155	-		16	-
grams per	0.04	-	0.024	0	0.003	-		15	-
grams per	-	-	325.347	326.436	290.14	-	-	-	-
miles per g	-		27.07	27.34	30.74	-	-	-	-
grams per	0.018	-	0.009	0	0	-		12	-
ne Hydrocarbon + Nitrogen Oxides									
grams per	0.65	-	-	-	-			10	-
grams per	-	-	-	-	-	-	-	-	-
alifornia)									
grams per	0.04	-	-	-	-			8	-
grams per	-	-	0.309	0.001	0.007	-	-	-	-
grams per	11.1	-	-	-	-			5	-
xhaust Emissions	289.2	-	-	-	-			95	-

grams per	-	-	0.288	0.001	0.005	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	0.2	0.004	0.006	-	-	-	-
grams per	3.4	-	2.234	0.042	0.355	-	18	-	-
grams per	0.65	-	-	-	-		7	-	-
grams per	-	-	0.186	0.004	0.004	-	-	-	-
grams per	-	-	336.602	393.29	307.745	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.075	-	0.194	0.004	0.004	-	58	-	-
grams per	-	-	-	-	-	-	-	-	-
miles per g	-	-	26.194	22.69	28.949	-	-	-	-
grams per	0.03	-	0.015	0	0.002	-	14	-	-
grams per	310.9	-	-	-	-		90	-	-
grams per	11.1	-	-	-	-		6	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.05	-	0.127	0.001	0.004	-	56	-	-
grams per	0.067	-	-	-	-		2	-	-
grams per	0.015	-	0.006	0	0	-	7	-	-
grams per	-	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.067	-	-	-	-		5	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	11.1	-	-	-	-		7	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	3.4	-	3.016	0.053	0.538	-	24	-	-
grams per	-		319.583	379.368	294.399	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	0.05	-	0.158	0.002	0.006	-	70	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-		0.244	0.002	0.009	-	-	-	-
grams per	0.65	-	-	-	-		8	-	-
grams per	0.03	-	0.021	0	0.005	-	20	-	-
grams per	301.3	-	-	-	-		93	-	-
grams per	0.015	-	0.007	0	0	-	14	-	-
grams per	-		0.261	0.003	0.013	-	-	-	-
miles per g	-		27.46	23.53	30.23	-	-	-	-
grams per	0.075	-	0.253	0.002	0.009	-	75	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-		9	9	-

ne Hydrocarbon + Nitrogen Oxides

ne Hydrocarbon + Nitrogen Oxides

grams per	3.4	1.7	1.688	0.006	0.097	-	12	23	-
grams per	0.015	0.008	0.002	0	0	-	7	13	-
grams per	0.03	-	0.017	0	0.005	-	17	-	-
ne Hydrocarbon + Nitrogen Oxides			-	-	-		5	-	-
grams per	0.05	0.05	0.044	0.016	0.009	-	40	40	-
ssions									
grams per	343.4	-	-	-	-		92	-	-
miles per g	-	-	-	-	-	-	-	-	
grams per	-	-	-	-	-	-	-	-	
miles per g	-		23.23	22	27.17	-	-	-	
miles per g	-	-	-	-	-	-	-	-	
grams per	-	-	-	-	-	-	-	-	
grams per	-	-	-	-	-	-	-	-	
grams per	-		0.079	0.002	0.003	-	-	-	
alifornia)									
grams per	-	-	-	-	-	-	-	-	
grams per	-		381.295	405.854	328.37	-	-	-	
alifornia)									
grams per	0.075	0.04	0.083	0.002	0.004	-	26	48	-
grams per	-		0.094	0.002	0.008	-	-	-	
grams per	11.1	-	-	-	-		2	-	-
grams per	-		0.083	0.001	0.005	-	-	-	
grams per	-	-	-	-	-	-	-	-	
xhaust Emissions									
grams per	343.4	-	-	-	-		91	-	-
grams per	0.03	-	0.018	0.001	0.007	-	20	-	-
grams per	0.015	0.008	0.002	0	0	-	7	13	-
ne Hydrocarbon + Nitrogen Oxides			-	-	-		4	-	-
grams per	-	-	-	-	-	-	-	-	
miles per g	-		23.538	22.72	27.626	-	-	-	
alifornia)									
grams per	0.075	0.04	0.086	0.001	0.006	-	27	50	-
grams per	11.1	-	-	-	-		3	-	-
grams per	-	-	-	-	-	-	-	-	
miles per g	-	-	-	-	-	-	-	-	
alifornia)									
grams per	-	-	-	-	-	-	-	-	
grams per	3.4	1.7	1.545	0.001	0.129	-	11	21	-
grams per	-		376.455	392.838	322.846	-	-	-	
miles per g	-	-	-	-	-	-	-	-	
grams per	-		0.098	0.002	0.011	-	-	-	
grams per	-	-	-	-	-	-	-	-	
grams per	0.067	0.067	-	-	-		3	3	-
grams per	0.05	0.05	0.031	0.007	0.007	-	24	24	-

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=-2.824, B2=-0.558, B3=-0.504, DT-EER=-1.085, B1=-1.276, B2=-1.471, B3=-0.384 Standards entered
=-2.824, B2=-0.558, B3=-0.504, DT-EER=-1.085, B1=-1.276, B2=-1.471, B3=-0.384 Standards entered
=-2.824, B2=-0.558, B3=-0.504, DT-EER=-1.085, B1=-1.276, B2=-1.471, B3=-0.384 Standards entered
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=-2.824, B2=-0.558, B3=-0.504, DT-EER=-1.085, B1=-1.276, B2=-1.471, B3=-0.384 Standards entered
=-2.824, B2=-0.558, B3=-0.504, DT-EER=-1.085, B1=-1.276, B2=-1.471, B3=-0.384 Standards entered
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3, B1=-1.983 Standards entered
=-2.824, B2=-0.558, B3=-0.504, DT-EER=-1.085, B1=-1.276, B2=-1.471, B3=-0.384 Standards entered
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3, B1=-1.983 Standards entered

RR=0.684, B1=-1.155, B2=1.842, B3=-0.199, DT-ASCR=1.058, B1=-0.519, B2=1.799, B3=0.084, DT-EER=0.207, B1=-0

RR=0.684, B1=-1.155, B2=1.842, B3=-0.199, DT-ASCR=1.058, B1=-0.519, B2=1.799, B3=0.084, DT-EER=0.207, B1=-0

RR=-3.752, B1=-3.752, DT-ASCR=-1.593, B1=-1.593, DT-EER=-1.431, B1=-1.431 Standards entered

RR=-3.752, B1=-3.752, DT-ASCR=-1.593, B1=-1.593, DT-EER=-1.431, B1=-1.431 Standards entered

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RR=0.684, B1=-1.155, B2=1.842, B3=-0.199, DT-ASCR=1.058, B1=-0.519, B2=1.799, B3=0.084, DT-EER=0.207, B1=-0

RR=-3.752, B1=-3.752, DT-ASCR=-1.593, B1=-1.593, DT-EER=-1.431, B1=-1.431 Standards entered

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RR=0.684, B1=-1.155, B2=1.842, B3=-0.199, DT-ASCR=1.058, B1=-0.519, B2=1.799, B3=0.084, DT-EER=0.207, B1=-0

RR=-3.752, B1=-3.752, DT-ASCR=-1.593, B1=-1.593, DT-EER=-1.431, B1=-1.431 Standards entered

RR=-3.752, B1=-3.752, DT-ASCR=-1.593, B1=-1.593, DT-EER=-1.431, B1=-1.431 Standards entered

RR=-3.752, B1=-3.752, DT-ASCR=-1.593, B1=-1.593, DT-EER=-1.431, B1=-1.431 Standards entered

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RR=-3.752, B1=-3.752, DT-ASCR=-1.593, B1=-1.593, DT-EER=-1.431, B1=-1.431 Standards entered

RR=0.684, B1=-1.155, B2=1.842, B3=-0.199, DT-ASCR=1.058, B1=-0.519, B2=1.799, B3=0.084, DT-EER=0.207, B1=-0

RR=0.684, B1=-1.155, B2=1.842, B3=-0.199, DT-ASCR=1.058, B1=-0.519, B2=1.799, B3=0.084, DT-EER=0.207, B1=-0

RR=0.684, B1=-1.155, B2=1.842, B3=-0.199, DT-ASCR=1.058, B1=-0.519, B2=1.799, B3=0.084, DT-EER=0.207, B1=-0

RR=-3.752, B1=-3.752, DT-ASCR=-1.593, B1=-1.593, DT-EER=-1.431, B1=-1.431 Standards entered

RR=-3.752, B1=-3.752, DT-ASCR=-1.593, B1=-1.593, DT-EER=-1.431, B1=-1.431 Standards entered

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RR=0.684, B1=-1.155, B2=1.842, B3=-0.199, DT-ASCR=1.058, B1=-0.519, B2=1.799, B3=0.084, DT-EER=0.207, B1=-0

RR=-3.752, B1=-3.752, DT-ASCR=-1.593, B1=-1.593, DT-EER=-1.431, B1=-1.431 Standards entered
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RR=0.684, B1=-1.155, B2=1.842, B3=-0.199, DT-ASCR=1.058, B1=-0.519, B2=1.799, B3=0.084, DT-EER=0.207, B1=-0
RR=0.684, B1=-1.155, B2=1.842, B3=-0.199, DT-ASCR=1.058, B1=-0.519, B2=1.799, B3=0.084, DT-EER=0.207, B1=-0
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-B1=1.854, DT-EER=-0.835, B1=-0.835 Standards entered
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97, DT-ASCR=-0.082, B1=-1.233, B2=0.659, B3=-1.379, DT-EER=-0.634, B1=-0.336, B2=-0.679, B3=-0.773 Standards
97, DT-ASCR=-0.082, B1=-1.233, B2=0.659, B3=-1.379, DT-EER=-0.634, B1=-0.336, B2=-0.679, B3=-0.773 Standards
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.836, B2=1.125, B3=0.462, DT-EER=-0.024, B1=-0.327, B2=0.303, B3=-0.326 Standards entered
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1, B1=-2.011 Standards entered
.836, B2=1.125, B3=0.462, DT-EER=-0.024, B1=-0.327, B2=0.303, B3=-0.326 Standards entered
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1, B1=-2.011 Standards entered
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ER=-0.077, B1=-0.128, B2=0.214, B3=-0.503
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.232, B2=0.321, B3=0.360 Standards entered

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InvestigationNum	MileageCat Code	Model Year	Mfr Name	Manufacturer Division	VIN	Verify Cd	Mfr	Displacement	Test Group	Evap Family
-	L	2014	Volkswage	VW				1.968	EVWXV02.	-
-	L	2014	Volkswage	VW				1.968	EVWXV02.	-
-	L	2014	Audi	Audi				2.967	EADXJ03.0	-
-	L	2014	Audi	Audi				2.967	EADXJ03.0	-
-	L	2014	Audi	Audi				2.967	EADXJ03.0	-
-	L	2014	Audi	Audi				2.967	EADXJ03.0	-
-	L	2014	Audi	Audi				2.967	EADXJ03.0	-
-	L	2014	Audi	Audi				2.967	EADXJ03.0	-
-	L	2014	Audi	Audi				2.967	EADXJ03.0	-
-	L	2014	Audi	Audi				2.967	EADXJ03.0	-
-	L	2014	Audi	VW				2.967	EADXT03.C	-
-	L	2014	Audi	VW				2.967	EADXT03.C	-
-	L	2014	Volkswage	VW				1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW				1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW				1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW				1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW				1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW				1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW				1.984	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi				2.967	EADXT03.C	-
-	L	2014	Audi	Audi				2.967	EADXT03.C	-
-	L	2014	Audi	VW				1.984	EADXV02.C	EADXR011
-	L	2014	Audi	VW				1.984	EADXV02.C	EADXR011
-	L	2014	Volkswage	VW				1.968	EVWXV02.	-
-	L	2014	Audi	Audi				2.995	EADXT03.C	EADXR017
-	L	2014	Volkswage	VW				1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW				1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW				1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW				1.984	EVWXJ02.C	EVWXR012
-	L	2014	Volkswage	VW				1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW				1.984	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi				1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi				1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi				1.984	EADXJ02.0	EADXR014
-	L	2014	Volkswage	VW				1.968	EVWXV02.	-
-	L	2014	Volkswage	VW				1.968	EVWXV02.	-
-	L	2014	Volkswage	VW				1.968	EVWXV02.	-
-	L	2014	Volkswage	VW				3.596	EVWXT03.	EVWXR023
-	L	2014	Volkswage	VW				3.596	EVWXT03.	EVWXR023
-	L	2014	Volkswage	VW				3.596	EVWXT03.	EVWXR023
-	L	2014	Audi	Audi				1.984	EADXV02.C	EADXR014

-	L	2014	Audi	Audi	[redacted]	1.984	EADXV02.(	EADXR014
-	L	2014	Audi	VW		2.967	EADXT03.C	-
-	L	2014	Audi	VW		2.967	EADXT03.C	-
-	L	2014	Audi	VW		2.967	EADXT03.C	-
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXT03.(	EADXR017
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Audi	Audi		2.967	EADXT03.C	-
-	L	2014	Audi	Audi		2.967	EADXT03.C	-
-	L	2014	Audi	Audi		2.967	EADXT03.C	-
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-

-	L	2014	Audi	VW	[redacted]	2.967	EADXT03.C-
-	L	2014	Audi	VW		2.967	EADXT03.C-
-	L	2014	Audi	VW		2.967	EADXT03.C-
-	L	2014	Audi	VW		2.967	EADXT03.C-
-	L	2014	Audi	VW		2.967	EADXT03.C-
-	L	2014	Volkswage	VW		1.984	EVWXV02.EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.EVWXR011
-	L	2014	Audi	Audi		2.967	EADXT03.C-
-	L	2014	Audi	Audi		2.967	EADXT03.C-
-	L	2014	Audi	Audi		2.967	EADXT03.C-
-	L	2014	Audi	VW		1.984	EADXV02.CEADXR011
-	L	2014	Audi	VW		1.984	EADXV02.CEADXR011
-	L	2014	Audi	VW		1.984	EADXV02.CEADXR011
-	L	2014	Audi	VW		1.984	EADXV02.CEADXR011
-	L	2014	Volkswage	VW		1.968	EVWXV02.-
-	L	2014	Volkswage	VW		1.968	EVWXV02.-
-	L	2014	Volkswage	VW		1.968	EVWXV02.-
-	L	2014	Volkswage	VW		1.968	EVWXV02.-
-	L	2014	Volkswage	VW		1.968	EVWXV02.-
-	L	2014	Audi	Audi		2.995	EADXT03.CEADXR017
-	L	2014	Volkswage	VW		1.798	EVWXV02.EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXJ02.CEVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.CEVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.CEVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.CEVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.CEVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXV02.EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.EVWXR011
-	L	2014	Audi	Audi		1.984	EADXJ02.0EADXR014
-	L	2014	Volkswage	VW		1.968	EVWXV02.-
-	L	2014	Volkswage	VW		1.968	EVWXV02.-
-	L	2014	Audi	Audi		1.984	EADXV02.CEADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.CEADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.CEADXR014

-	L	2014	Audi	VW	[redacted]	2.967	EADXT03.C	-
-	L	2014	Audi	VW		2.967	EADXT03.C	-
-	L	2014	Audi	Audi		1.984	EADXV02.C	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.C	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.C	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.C	EADXR014
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Volkswage	VW		3.596	EVWXT03.	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.	EVWXR023
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Audi	Audi		2.967	EADXT03.C	-
-	L	2014	Audi	Audi		2.967	EADXT03.C	-
-	L	2014	Audi	Audi		2.967	EADXT03.C	-

-	L	2014	Audi	Audi	[redacted]	2.967	EADXT03.C-	
-	L	2014	Volkswage	VW		3.596	EVWXT03.I	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.I	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.I	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.I	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.I	EVWXR023
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		2.967	EADXJ03.0-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi		2.967	EADXT03.C-	
-	L	2014	Audi	Audi		2.967	EADXT03.C-	
-	L	2014	Audi	Audi		2.967	EADXT03.C-	
-	L	2014	Audi	Audi		2.967	EADXT03.C-	
-	L	2014	Audi	Audi		2.967	EADXT03.C-	
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Audi	Audi		2.995	EADXT03.C	EADXR017
-	L	2014	Audi	Audi		2.995	EADXT03.C	EADXR017
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXJ02.C	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.C	EVWXR012

-	L	2014	Volkswage	VW	[redacted]	1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		3.596	EVWXT03.	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.	EVWXR023
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	VW		2.967	EADXT03.C	-
-	L	2014	Audi	VW		2.967	EADXT03.C	-
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXT03.C	EADXR017
-	L	2014	Audi	Audi		2.995	EADXT03.C	EADXR017
-	L	2014	Audi	Audi		2.995	EADXT03.C	EADXR017
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	VW		1.984	EADXV02.(	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.(	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.(	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.(	EADXR011
-	L	2014	Volkswage	VW		3.596	EVWXT03.	EVWXR023
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-

-	L	2014	Volkswage	VW	[redacted]	1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Audi	Audi		2.967	EADXT03.C-	
-	L	2014	Volkswage	VW		3.596	EVWXT03.I	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.I	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.I	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.I	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.I	EVWXR023
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi		2.967	EADXT03.C-	
-	L	2014	Audi	Audi		2.967	EADXT03.C-	
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Audi	Audi		2.995	EADXT03.C	EADXR017
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011

-	L	2014	Volkswage	VW	[redacted]	1.984	EVWXJ02.(
-	L	2014	Volkswage	VW		1.984	EVWXJ02.(
-	L	2014	Volkswage	VW		1.984	EVWXV02.
-	L	2014	Volkswage	VW		1.984	EVWXV02.
-	L	2014	Audi	Audi		1.984	EADXJ02.0
-	L	2014	Audi	Audi		1.984	EADXJ02.0
-	L	2014	Audi	Audi		1.984	EADXJ02.0
-	L	2014	Volkswage	VW		1.968	EVWXV02.-
-	L	2014	Volkswage	VW		1.968	EVWXV02.-
-	L	2014	Volkswage	VW		1.968	EVWXV02.-
-	L	2014	Volkswage	VW		3.596	EVWXT03.
-	L	2014	Audi	Audi		1.984	EADXV02.(
-	L	2014	Audi	Audi		1.984	EADXV02.(
-	L	2014	Audi	VW		2.967	EADXT03.C-
-	L	2014	Audi	Audi		1.984	EADXV02.(
-	L	2014	Audi	Audi		1.984	EADXV02.(
-	L	2014	Audi	Audi		1.984	EADXV02.(
-	L	2014	Volkswage	VW		1.395	EVWXV01.
-	L	2014	Volkswage	VW		1.395	EVWXV01.
-	L	2014	Volkswage	VW		1.395	EVWXV01.
-	L	2014	Volkswage	VW		1.395	EVWXV01.
-	L	2014	Volkswage	VW		1.395	EVWXV01.
-	L	2014	Volkswage	VW		1.395	EVWXV01.
-	L	2014	Audi	Audi		1.984	EADXJ02.0
-	L	2014	Audi	Audi		1.984	EADXJ02.0
-	L	2014	Audi	Audi		1.984	EADXJ02.0
-	L	2014	Audi	Audi		2.995	EADXT03.(
-	L	2014	Audi	Audi		2.967	EADXJ03.0-
-	L	2014	Audi	Audi		2.967	EADXJ03.0-
-	L	2014	Audi	Audi		2.967	EADXJ03.0-
-	L	2014	Audi	Audi		2.967	EADXJ03.0-
-	L	2014	Audi	VW		1.984	EADXV02.(
-	L	2014	Audi	VW		1.984	EADXV02.(
-	L	2014	Audi	VW		1.984	EADXV02.(
-	L	2014	Audi	VW		1.984	EADXV02.(
-	L	2014	Volkswage	VW		1.798	EVWXV02.
-	L	2014	Volkswage	VW		1.798	EVWXV02.
-	L	2014	Audi	Audi		2.995	EADXJ03.0
-	L	2014	Audi	Audi		2.995	EADXJ03.0
-	L	2014	Audi	Audi		2.995	EADXJ03.0
-	L	2014	Audi	Audi		2.995	EADXJ03.0
-	L	2014	Volkswage	VW		1.984	EVWXV02.
-	L	2014	Volkswage	VW		1.984	EVWXV02.
-	L	2014	Volkswage	VW		1.984	EVWXV02.
-	L	2014	Volkswage	VW		1.984	EVWXV02.

-	L	2014	Volkswage	VW	[redacted]	1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Audi	Audi		2.967	EADXT03.0	-
-	L	2014	Audi	Audi		2.967	EADXT03.0	-
-	L	2014	Audi	Audi		2.967	EADXT03.0	-
-	L	2014	Audi	Audi		2.967	EADXT03.0	-
-	L	2014	Audi	Audi		2.967	EADXT03.0	-
-	L	2014	Audi	Audi		2.967	EADXT03.0	-
-	L	2014	Volkswage	VW		3.596	EVWXT03.0	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.0	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.0	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.0	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.0	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.0	EVWXR023
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	VW		2.967	EADXT03.0	-
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi		2.967	EADXT03.0	-
-	L	2014	Audi	Audi		2.967	EADXT03.0	-
-	L	2014	Audi	Audi		2.967	EADXT03.0	-
-	L	2014	Audi	VW		1.984	EADXV02.0	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.0	EADXR011
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-

-	L	2014	Volkswage	VW	[redacted]	1.968	EVWXV02.-	
-	L	2014	Audi	Audi		2.995	EADXT03.C	EADXR017
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXJ02.(	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.(	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.(	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.(	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.(	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXT03.C	EADXR017
-	L	2014	Audi	Audi		2.995	EADXT03.C	EADXR017
-	L	2014	Audi	Audi		2.967	EADXJ03.0-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0-	

-	L	2014	Audi	Audi	[redacted]	2.967	EADXJ03.0	-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-	
-	L	2014	Audi	VW		1.984	EADXV02.(	EADXR011	
-	L	2014	Audi	VW		1.984	EADXV02.(	EADXR011	
-	L	2014	Audi	VW		1.984	EADXV02.(	EADXR011	
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023	
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023	
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023	
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011	
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014	
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014	
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014	
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011	
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011	
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011	
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012	
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012	
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-	
-	L	2014	Audi	Audi		2.967	EADXT03.(	-	
-	L	2014	Audi	Audi		2.967	EADXT03.(	-	
-	L	2014	Audi	Audi		2.967	EADXT03.(	-	
-	L	2014	Audi	Audi		2.967	EADXT03.(	-	
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023	
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023	
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014	
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014	
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014	
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-	
-	L	2014	Audi	VW		2.967	EADXT03.(	-	

-	L	2014	Audi	VW	[redacted]	2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi		2.967	EADXT03.C-	
-	L	2014	Audi	Audi		2.967	EADXT03.C-	
-	L	2014	Audi	Audi		2.967	EADXT03.C-	
-	L	2014	Audi	Audi		2.967	EADXT03.C-	
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Audi	Audi		2.995	EADXT03.C	EADXR017
-	L	2014	Audi	Audi		2.995	EADXT03.C	EADXR017
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXJ02.C	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.C	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.C	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.C	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		3.596	EVWXT03.	EVWXR023
-	L	2014	Audi	Audi		1.984	EADXV02.C	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.C	EADXR014
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	Audi		1.984	EADXV02.C	EADXR014

-	L	2014	Audi	Audi	[redacted]	1.984	EADXV02.(	EADXR014
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXT03.(	EADXR017
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	VW		1.984	EADXV02.(	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.(	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.(	EADXR011
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Audi	Audi		2.967	EADXT03.C	-
-	L	2014	Audi	Audi		2.967	EADXT03.C	-
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014

-	L	2014	Audi	Audi	[redacted]	1.984	EADXJ02.0	EADXR014
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Audi	Audi		2.995	EADXT03.C	EADXR017
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXJ02.C	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.C	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.C	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.C	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Audi	Audi		1.984	EADXV02.C	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.C	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.C	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.C	EADXR014
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	VW		2.967	EADXT03.C-	
-	L	2014	Audi	Audi		1.984	EADXV02.C	EADXR014

-	L	2014	Audi	Audi	[redacted]	1.984	EADXV02.(	EADXR014
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXT03.(	EADXR017
-	L	2014	Audi	Audi		2.995	EADXT03.(	EADXR017
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	VW		1.984	EADXV02.(	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.(	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.(	EADXR011
-	L	2014	Audi	VW		1.984	EADXV02.(	EADXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.(	EVWXR023

-	L	2014	Volkswage	VW	[redacted]	3.596	EVWXT03.I	EVWXR023
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	VW		2.967	EADXT03.C	-
-	L	2014	Audi	VW		2.967	EADXT03.C	-
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi		2.967	EADXT03.C	-
-	L	2014	Audi	Audi		2.967	EADXT03.C	-
-	L	2014	Audi	Audi		2.967	EADXT03.C	-
-	L	2014	Audi	Audi		2.967	EADXT03.C	-
-	L	2014	Audi	Audi		2.967	EADXT03.C	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Audi	Audi		2.995	EADXT03.C	EADXR017
-	L	2014	Audi	Audi		2.995	EADXT03.C	EADXR017
-	L	2014	Audi	Audi		2.995	EADXT03.C	EADXR017
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXJ02.(	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.(	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXJ02.(	EVWXR012
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Volkswage	VW		1.968	EVWXV02.-	
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.(	EADXR014
-	L	2014	Audi	VW		2.967	EADXT03.C	-
-	L	2014	Audi	VW		2.967	EADXT03.C	-

-	L	2014	Audi	VW	[redacted]	2.967	EADXT03.C	-
-	L	2014	Audi	Audi		1.984	EADXV02.C	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.C	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.C	EADXR014
-	L	2014	Audi	Audi		1.984	EADXV02.C	EADXR014
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Volkswage	VW		1.395	EVWXV01.	EVWXR011
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXT03.C	EADXR017
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	Audi		2.967	EADXJ03.0	-
-	L	2014	Audi	VW		1.984	EADXV02.C	EADXR011
-	L	2014	Volkswage	VW		3.596	EVWXT03.	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.	EVWXR023
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR011
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Audi	Audi		2.995	EADXJ03.0	EADXR014
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.984	EVWXV02.	EVWXR011
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.798	EVWXV02.	EVWXR012
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Volkswage	VW		1.968	EVWXV02.	-
-	L	2014	Audi	Audi		2.967	EADXT03.C	-
-	L	2014	Audi	Audi		2.967	EADXT03.C	-
-	L	2014	Audi	Audi		2.967	EADXT03.C	-
-	L	2014	Volkswage	VW		3.596	EVWXT03.	EVWXR023
-	L	2014	Volkswage	VW		3.596	EVWXT03.	EVWXR023
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014
-	L	2014	Audi	Audi		1.984	EADXJ02.0	EADXR014

Carline Code	CarlineName	MFR Vehicle Model	Trim Level	Veh ProcSale Area	State	Veh ProcAltitude	Veh ProcClimate	Useful Life 75 PCT Requirem	Odometer At Proc
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189

75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
225	Jetta Wag	Jetta Wag	Jetta Wag	CA	CA	L	W	Vehicle no	26348
225	Jetta Wag	Jetta Wag	Jetta Wag	CA	CA	L	W	Vehicle no	26348
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032

140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189

140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699

320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754

221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348

225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235

160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302

221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
225	Jetta Wag	Jetta Wag	Jetta Wag	CA	CA	L	W	Vehicle no	26348
225	Jetta Wag	Jetta Wag	Jetta Wag	CA	CA	L	W	Vehicle no	26348
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329

280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691

75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
225	Jetta Wag	Jetta Wag	Jetta Wag	CA	CA	L	W	Vehicle no	26348
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813

140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656

10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740

20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
211	GTI	GTI	GTI	CA	CA	L	W	Vehicle no	13284
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	MI	L	C	Vehicle no	17025
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656

10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219

140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
280	Passat	Passat	Passat	CA	CA	L	W	Vehicle no	17598
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
75	A6	A6	A6	CA	CA	L	W	Vehicle no	22032
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	11813
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
216	Eos	Eos	Eos	CA	MI	L	C	Vehicle no	12706
230	Beetle	Beetle	Beetle	CA	MI	L	C	Vehicle no	25535
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	22578
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
280	Passat	Passat	Passat	CA	MI	L	C	Vehicle no	23329
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	21235
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
160	Tiguan	Tiguan	Tiguan	CA	CA	L	W	Vehicle no	12754
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
221	Jetta	Jetta	Jetta	CA	CA	L	W	Vehicle no	14154
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
40	A5	A5	A5	CA	CA	L	W	Vehicle no	13149
225	Jetta Wag	Jetta Wag	Jetta Wag	CA	MI	L	C	Vehicle no	17025
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
75	A6	A6	A6	CA	MI	L	C	Vehicle no	17189
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383

140	140	Touareg	Touareg	CA	MI	L	C	Vehicle no	20383
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
10	A4	A4	A4	CA	CA	L	W	Vehicle no	20656
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
222	Jetta Hybri	Jetta Hybri	Jetta Hybri	CA	CA	L	W	Vehicle no	14892
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
53	A5 Conver	A5 Conver	A5 Conver	CA	CA	L	W	Vehicle no	14303
320	Q7	Q7	Q7	CA	MI	L	C	Vehicle no	43524
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
75	A6	A6	A6	CA	MI	L	C	Vehicle no	12691
211	GTI	GTI	-	CA	MI	L	C	Vehicle no	14819
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	14663
221	Jetta	Jetta	Jetta	FA	MI	L	C	Vehicle no	10366
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
70	A7	A7	A7	CA	MI	L	C	Vehicle no	18731
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
221	Jetta	Jetta	Jetta	CA	MI	L	C	Vehicle no	16302
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
280	Passat	Passat	Passat	FA	MI	L	C	Vehicle no	11706
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wagc	Jetta Wagc	Jetta Wagc	CA	CA	L	W	Vehicle no	26348
225	Jetta Wage	Jetta Wage	Jetta Wage	CA	CA	L	W	Vehicle no	18736
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
320	Q7	Q7	Q7	CA	CA	L	W	Vehicle no	10699
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
140	Touareg	Touareg	Touareg	CA	CA	L	W	Vehicle no	21219
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740
20	A4	A4	A4	CA	MI	L	C	Vehicle no	15740

Trans Type	Trans Other	TransLock up	CreeperGear	TransGear Num	Tire Size	AxleRatio	EngineCode	EquivTest Weight	InspectionDate
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	16-Apr-15
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	16-Apr-15
Automatic	% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	8-Apr-15
Automatic	% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	8-Apr-15
Automatic	% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	8-Apr-15
Automatic	% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	8-Apr-15
Automatic	% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	8-Apr-15
Automatic	% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	8-Apr-15
Automatic	% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	8-Apr-15
Automatic	% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	8-Apr-15
Automatic	% of useful life requirement	N	N	8	275/45 R2	3.27	CNRB	5250	7-May-15
Automatic	% of useful life requirement	N	N	8	275/45 R2	3.27	CNRB	5250	7-May-15
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	N	6	235/40 R1	3.14	CPPA	3500	7-Oct-15
Automatic	% of useful life requirement	N	N	6	235/40 R1	3.14	CPPA	3500	7-Oct-15
Automatic	% of useful life requirement	N	N	6	235/40 R1	3.14	CPPA	3500	7-Oct-15
Automatic	% of useful life requirement	N	N	6	235/40 R1	3.14	CPPA	3500	7-Oct-15
Automatic	% of useful life requirement	N	N	8	295/35 R2	3.27	CNRB	6000	7-Oct-15
Automatic	% of useful life requirement	N	N	8	295/35 R2	3.27	CNRB	6000	7-Oct-15
Automatic	% of useful life requirement	N	N	6	225/40R18	3.14	CBFA	3375	15-Apr-15
Automatic	% of useful life requirement	N	N	6	225/40R18	3.14	CBFA	3375	15-Apr-15
Automatic	% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	24-Jul-15
Automatic	% of useful life requirement	N	N	8	275/45 R2	3.7	CTWB	5500	24-Jul-15
Automatic	% of useful life requirement	N	N	6	205/55 R1	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	N	6	205/55 R1	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	N	6	205/55 R1	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	N	6	215/65 R1	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	N	6	195/65 R1	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	N	6	195/65 R1	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4000	16-Jul-15
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4000	16-Jul-15
Automatic	% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4000	16-Jul-15
Automatic	% of useful life requirement	N	N	6	205/55 R1	3.04	CJAA	3750	11-May-15
Automatic	% of useful life requirement	N	N	6	205/55 R1	3.04	CJAA	3750	11-May-15
Automatic	% of useful life requirement	N	N	6	205/55 R1	3.04	CJAA	3750	11-May-15
Automatic	% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	1-Sep-15
Automatic	% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	1-Sep-15
Automatic	% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	1-Sep-15
Automatic	% of useful life requirement	N	N	8	245/45 R1	3.08	CAED	4250	11-May-15

% of useful life requirement	N	N	8	245/45 R1	3.08	CAED	4250	11-May-15	
% of useful life requirement	N	N	8	255/55 R1	3.27	CNRB	5250	11-May-15	
% of useful life requirement	N	N	8	255/55 R1	3.27	CNRB	5250	11-May-15	
% of useful life requirement	N	N	8	255/55 R1	3.27	CNRB	5250	11-May-15	
Continuou	N	N	1	245/40 R1	3.09	CAED	3875	17-Jun-15	
Continuou	N	N	1	245/40 R1	3.09	CAED	3875	17-Jun-15	
% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4500	8-May-15	
% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4500	8-May-15	
% of useful life requirement	N	N	8	275/45 R2	3.7	CTWB	5500	24-Jul-15	
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15	
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15	
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15	
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15	
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15	
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15	
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15	
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	1-Sep-15	
% of useful life requirement	N	N	6	225/45 R1	3.23	CPKA	3375	1-Sep-15	
% of useful life requirement	N	N	8	265/35 R2	2.85	CTUA	4500	31-Aug-15	
% of useful life requirement	N	N	8	265/35 R2	2.85	CTUA	4500	31-Aug-15	
% of useful life requirement	N	N	6	195/65 R1	3.69	CBPA	3250	11-May-15	
% of useful life requirement	N	N	6	195/65 R1	3.69	CBPA	3250	11-May-15	
% of useful life requirement	N	N	6	195/65 R1	3.69	CBPA	3250	11-May-15	
% of useful life requirement	N	N	6	215/60 R1	3.23	CPKA	3625	24-Jul-15	
% of useful life requirement	N	N	6	215/60 R1	3.23	CPKA	3625	24-Jul-15	
% of useful life requirement	N	N	6	215/60 R1	3.23	CPKA	3625	24-Jul-15	
% of useful life requirement	N	N	6	215/60 R1	3.23	CPKA	3625	24-Jul-15	
Manual	N	N	6	205/55 R1	2.76	CJAA	3625	14-May-15	
% of useful life requirement	N	N	6	205/55 R1	2.76	CJAA	3625	14-May-15	
% of useful life requirement	N	N	6	205/55 R1	3.04	CJAA	3750	9-Jun-15	
% of useful life requirement	N	N	6	205/55 R1	3.04	CJAA	3750	9-Jun-15	
% of useful life requirement	N	N	6	205/55 R1	3.04	CJAA	3750	9-Jun-15	
% of useful life requirement	N	N	8	275/45 R2	3.27	CNRB	6000	3-Jun-15	
% of useful life requirement	N	N	8	275/45 R2	3.27	CNRB	6000	3-Jun-15	
% of useful life requirement	N	N	8	275/45 R2	3.27	CNRB	6000	3-Jun-15	
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	13-May-15	
% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4000	24-Jul-15	
% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4000	24-Jul-15	
% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	16-Apr-15	
% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	16-Apr-15	
% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	16-Apr-15	
% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	16-Apr-15	
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	8-Apr-15	
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	8-Apr-15	
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	8-Apr-15	

Automatic	% of useful life requirement	N	8275/45 R2(	3.27	CNRB	5250	7-May-15
Automatic	% of useful life requirement	N	8275/45 R2(	3.27	CNRB	5250	7-May-15
Automatic	% of useful life requirement	N	8275/45 R2(	3.27	CNRB	5250	7-May-15
Automatic	% of useful life requirement	N	8275/45 R2(	3.27	CNRB	5250	7-May-15
Automatic	% of useful life requirement	N	8275/45 R2(	3.27	CNRB	5250	7-May-15
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CPPA	3500	7-Oct-15
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CPPA	3500	7-Oct-15
Automatic	% of useful life requirement	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15
Automatic	% of useful life requirement	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15
Automatic	% of useful life requirement	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15
Automatic	% of useful life requirement	N	6225/40R18	3.14	CBFA	3375	15-Apr-15
Automatic	% of useful life requirement	N	6225/40R18	3.14	CBFA	3375	15-Apr-15
Automatic	% of useful life requirement	N	6225/40R18	3.14	CBFA	3375	15-Apr-15
Automatic	% of useful life requirement	N	6225/40R18	3.14	CBFA	3375	15-Apr-15
Automatic	% of useful life requirement	N	6235/45 R1	3.04	CKRA	3750	24-Jul-15
Automatic	% of useful life requirement	N	6235/45 R1	3.04	CKRA	3750	24-Jul-15
Automatic	% of useful life requirement	N	6235/45 R1	3.04	CKRA	3750	24-Jul-15
Automatic	% of useful life requirement	N	6235/45 R1	3.04	CKRA	3750	24-Jul-15
Automatic	% of useful life requirement	N	6235/45 R1	3.04	CKRA	3750	24-Jul-15
Automatic	% of useful life requirement	N	8275/45 R2(	3.7	CTWB	5500	24-Jul-15
Automatic	% of useful life requirement	N	6205/55 R1(	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	6205/55 R1(	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	6205/55 R1(	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	6205/55 R1(	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	6205/55 R1(	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	6205/55 R1(	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	6205/55 R1(	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	6215/65 R1(	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	6215/65 R1(	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	6215/65 R1(	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	6215/65 R1(	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	6215/65 R1(	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	6195/65 R1	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	6195/65 R1	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	6195/65 R1	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	6195/65 R1	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	8245/40 R1	2.85	CPMB	4000	16-Jul-15
Automatic	% of useful life requirement	N	6205/55 R1(	3.04	CJAA	3750	11-May-15
Automatic	% of useful life requirement	N	6205/55 R1(	3.04	CJAA	3750	11-May-15
Automatic	% of useful life requirement	N	8245/45 R1	3.08	CAED	4250	11-May-15
Automatic	% of useful life requirement	N	8245/45 R1	3.08	CAED	4250	11-May-15
Automatic	% of useful life requirement	N	8245/45 R1	3.08	CAED	4250	11-May-15

% of useful life requirement	N	N	8	255/55 R1	3.27	CNRB	5250	11-May-15
% of useful life requirement	N	N	8	255/55 R1	3.27	CNRB	5250	11-May-15
% of useful life requirement	N	N	1	245/40 R1	3.09	CAED	3875	17-Jun-15
% of useful life requirement	N	N	1	245/40 R1	3.09	CAED	3875	17-Jun-15
% of useful life requirement	N	N	1	245/40 R1	3.09	CAED	3875	17-Jun-15
% of useful life requirement	N	N	1	245/40 R1	3.09	CAED	3875	17-Jun-15
% of useful life requirement	N	N	7	195/65 R1	3.23	CNLA	3625	23-Apr-15
% of useful life requirement	N	N	7	195/65 R1	3.23	CNLA	3625	23-Apr-15
% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4500	8-May-15
% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4500	8-May-15
% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4500	8-May-15
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life requirement	N	N	6	225/40 R1	3.14	CBFA	3375	11-May-15
% of useful life requirement	N	N	6	225/40 R1	3.14	CBFA	3375	11-May-15
% of useful life requirement	N	N	6	225/40 R1	3.14	CBFA	3375	11-May-15
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	1-Sep-15
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	1-Sep-15
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	1-Sep-15
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	1-Sep-15
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	1-Sep-15
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	1-Sep-15
% of useful life requirement	N	N	6	225/45 R1	3.23	CPKA	3375	1-Sep-15
% of useful life requirement	N	N	6	225/45 R1	3.23	CPKA	3375	1-Sep-15
% of useful life requirement	N	N	6	225/45 R1	3.23	CPKA	3375	1-Sep-15
% of useful life requirement	N	N	6	225/45 R1	3.23	CPKA	3375	1-Sep-15
% of useful life requirement	N	N	6	225/45 R1	3.23	CPKA	3375	1-Sep-15
% of useful life requirement	N	N	6	225/45 R1	3.23	CPKA	3375	1-Sep-15
% of useful life requirement	N	N	6	225/45 R1	3.23	CPKA	3375	1-Sep-15
% of useful life requirement	N	N	8	265/35 R2	2.85	CTUA	4500	31-Aug-15
% of useful life requirement	N	N	8	265/35 R2	2.85	CTUA	4500	31-Aug-15
% of useful life requirement	N	N	8	265/35 R2	2.85	CTUA	4500	31-Aug-15
% of useful life requirement	N	N	8	265/35 R2	2.85	CTUA	4500	31-Aug-15
% of useful life requirement	N	N	6	195/65 R1	3.69	CBPA	3250	11-May-15
% of useful life requirement	N	N	6	195/65 R1	3.69	CBPA	3250	11-May-15
% of useful life requirement	N	N	6	215/60 R1	3.23	CPKA	3625	24-Jul-15
% of useful life requirement	N	N	6	205/55 R1	2.76	CJAA	3625	14-May-15
% of useful life requirement	N	N	6	205/55 R1	2.76	CJAA	3625	14-May-15
% of useful life requirement	N	N	6	205/55 R1	3.04	CJAA	3750	9-Jun-15
% of useful life requirement	N	N	6	205/55 R1	3.04	CJAA	3750	9-Jun-15
% of useful life requirement	N	N	8	275/45 R2	3.27	CNRB	6000	3-Jun-15
% of useful life requirement	N	N	8	275/45 R2	3.27	CNRB	6000	3-Jun-15
% of useful life requirement	N	N	8	275/45 R2	3.27	CNRB	6000	3-Jun-15

Automatic	% of useful life requirement	N	8275/45 R2(	3.27	CNRB	6000	3-Jun-15	
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	13-May-15	
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	13-May-15	
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	13-May-15	
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	13-May-15	
Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	13-May-15	
Automatic	% of useful life requirement	N	8245/40 R1	2.85	CPMB	4000	24-Jul-15	
Automatic	% of useful life requirement	N	8245/40 R1	2.85	CPMB	4000	24-Jul-15	
Automatic	% of useful life requirement	N	8245/40 R1	2.85	CPMB	4000	24-Jul-15	
Automatic	% of useful life requirement	N	8245/45 R1	2.52	CPNB	4500	8-Apr-15	
Automatic	% of useful life requirement	N	8245/45 R1	2.52	CPNB	4500	8-Apr-15	
Automatic	% of useful life requirement	N	8245/45 R1	2.52	CPNB	4500	8-Apr-15	
Automatic	% of useful life requirement	N	8245/45 R1	2.52	CPNB	4500	8-Apr-15	
Automatic	% of useful life requirement	N	8245/45 R1	2.52	CPNB	4500	8-Apr-15	
Automatic	% of useful life requirement	N	8245/45 R1	2.52	CPNB	4500	8-Apr-15	
Automatic	% of useful life requirement	N	8275/45 R2(	3.27	CNRB	5250	7-May-15	
Automatic	% of useful life requirement	N	8275/45 R2(	3.27	CNRB	5250	7-May-15	
Automatic	% of useful life requirement	N	8275/45 R2(	3.27	CNRB	5250	7-May-15	
Automatic	% of useful life requirement	N	8275/45 R2(	3.27	CNRB	5250	7-May-15	
Automatic	% of useful life requirement	N	8275/45 R2(	3.27	CNRB	5250	7-May-15	
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15	
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15	
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15	
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CPPA	3500	7-Oct-15	
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CPPA	3500	7-Oct-15	
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CPPA	3500	7-Oct-15	
Automatic	% of useful life requirement	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15	
Automatic	% of useful life requirement	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15	
Automatic	% of useful life requirement	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15	
Automatic	% of useful life requirement	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15	
Automatic	% of useful life requirement	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15	
Automatic	% of useful life requirement	N	6225/40R18	3.14	CBFA	3375	15-Apr-15	
Automatic	% of useful life requirement	N	6225/40R18	3.14	CBFA	3375	15-Apr-15	
Automatic	% of useful life requirement	N	6225/40R18	3.14	CBFA	3375	15-Apr-15	
Automatic	% of useful life requirement	N	6225/40R18	3.14	CBFA	3375	15-Apr-15	
Automatic	% of useful life requirement	N	6225/40R18	3.14	CBFA	3375	15-Apr-15	
Automatic	% of useful life requirement	N	6235/45 R1	3.04	CKRA	3750	24-Jul-15	
Automatic	% of useful life requirement	N	6235/45 R1	3.04	CKRA	3750	24-Jul-15	
Automatic	% of useful life requirement	N	6235/45 R1	3.04	CKRA	3750	24-Jul-15	
Automatic	% of useful life requirement	N	8275/45 R2(	3.7	CTWB	5500	24-Jul-15	
Automatic	% of useful life requirement	N	8275/45 R2(	3.7	CTWB	5500	24-Jul-15	
Automatic	% of useful life requirement	N	6205/55 R1(	3.23	CPRA	3375	28-Jul-15	
Automatic	% of useful life requirement	N	6205/55 R1(	3.23	CPRA	3375	28-Jul-15	
Automatic	% of useful life requirement	N	6215/65 R1(	3.54	CCTA	3875	13-Aug-15	
Automatic	% of useful life requirement	N	6215/65 R1(	3.54	CCTA	3875	13-Aug-15	

Automatic	% of useful life requirement	N	N	6195/65 R15	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	N	6195/65 R15	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	N	8245/40 R18	2.85	CPMB	4000	16-Jul-15
Automatic	% of useful life requirement	N	N	8245/40 R18	2.85	CPMB	4000	16-Jul-15
Automatic	% of useful life requirement	N	N	8245/40 R18	2.85	CPMB	4000	16-Jul-15
Automatic	% of useful life requirement	N	N	6205/55 R16	3.04	CJAA	3750	11-May-15
Automatic	% of useful life requirement	N	N	6205/55 R16	3.04	CJAA	3750	11-May-15
Automatic	% of useful life requirement	N	N	8255/55 R18	3.7	CGRA	5250	1-Sep-15
Automatic	% of useful life requirement	N	N	8255/55 R18	3.7	CGRA	5250	1-Sep-15
Automatic	% of useful life requirement	N	N	8245/45 R18	3.08	CAED	4250	11-May-15
Automatic	% of useful life requirement	N	N	8245/45 R18	3.08	CAED	4250	11-May-15
Automatic	% of useful life requirement	N	N	8245/45 R18	3.08	CAED	4250	11-May-15
Automatic	% of useful life requirement	N	N	8245/45 R18	3.08	CAED	4250	11-May-15
Automatic	% of useful life requirement	N	N	8255/55 R18	3.27	CNRB	5250	11-May-15
Automatic	% of useful life requirement	N	N	8255/55 R18	3.27	CNRB	5250	11-May-15
Continuou	% of useful life requirement	N	N	1245/40 R18	3.09	CAED	3875	17-Jun-15
Continuou	% of useful life requirement	N	N	1245/40 R18	3.09	CAED	3875	17-Jun-15
Continuou	% of useful life requirement	N	N	1245/40 R18	3.09	CAED	3875	17-Jun-15
Continuou	% of useful life requirement	N	N	1245/40 R18	3.09	CAED	3875	17-Jun-15
Automatic	% of useful life requirement	N	N	7195/65 R15	3.23	CNLA	3625	23-Apr-15
Automatic	% of useful life requirement	N	N	8245/40 R18	2.85	CPMB	4500	8-May-15
Automatic	% of useful life requirement	N	N	8245/40 R18	2.85	CPMB	4500	8-May-15
Automatic	% of useful life requirement	N	N	8275/45 R20	3.7	CTWB	5500	24-Jul-15
Automatic	% of useful life requirement	N	N	8275/45 R20	3.7	CTWB	5500	24-Jul-15
Automatic	% of useful life requirement	N	N	8275/45 R20	3.7	CTWB	5500	24-Jul-15
Automatic	% of useful life requirement	N	N	8245/45 R18	2.52	CPNB	4500	13-May-15
Automatic	% of useful life requirement	N	N	8245/45 R18	2.52	CPNB	4500	13-May-15
Automatic	% of useful life requirement	N	N	6225/40 R18	3.14	CBFA	3375	11-May-15
Automatic	% of useful life requirement	N	N	6225/40 R18	3.14	CBFA	3375	11-May-15
Automatic	% of useful life requirement	N	N	6225/40 R18	3.14	CBFA	3375	11-May-15
Automatic	% of useful life requirement	N	N	6225/40 R18	3.14	CBFA	3375	11-May-15
Automatic	% of useful life requirement	N	N	8255/55 R18	3.7	CGRA	5250	1-Sep-15
Automatic	% of useful life requirement	N	N	6225/45 R17	3.23	CPKA	3375	1-Sep-15
Automatic	% of useful life requirement	N	N	6225/45 R17	3.23	CPKA	3375	1-Sep-15
Automatic	% of useful life requirement	N	N	6225/45 R17	3.23	CPKA	3375	1-Sep-15
Automatic	% of useful life requirement	N	N	8265/35 R20	2.85	CTUA	4500	31-Aug-15
Automatic	% of useful life requirement	N	N	8265/35 R20	2.85	CTUA	4500	31-Aug-15
Automatic	% of useful life requirement	N	N	8265/35 R20	2.85	CTUA	4500	31-Aug-15
Automatic	% of useful life requirement	N	N	8265/35 R20	2.85	CTUA	4500	31-Aug-15
Automatic	% of useful life requirement	N	N	6195/65 R15	3.69	CBPA	3250	11-May-15
Automatic	% of useful life requirement	N	N	6195/65 R15	3.69	CBPA	3250	11-May-15
Automatic	% of useful life requirement	N	N	6215/60 R16	3.23	CPKA	3625	24-Jul-15
Automatic	% of useful life requirement	N	N	6215/60 R16	3.23	CPKA	3625	24-Jul-15
Automatic	% of useful life requirement	N	N	6215/60 R16	3.23	CPKA	3625	24-Jul-15
Manual	% of useful life requirement	N	N	6205/55 R16	2.76	CJAA	3625	14-May-15

% of useful life requirement	Manual	N	N	6205/55 R1(	2.76	CJAA	3625	14-May-15
% of useful life requirement	Manual	N	N	6205/55 R1(	2.76	CJAA	3625	14-May-15
% of useful life requirement	Manual	N	N	6205/55 R1(	2.76	CJAA	3625	14-May-15
% of useful life requirement	Manual	N	N	6205/55 R1(	2.76	CJAA	3625	14-May-15
% of useful life requirement	Manual	N	N	6205/55 R1(	2.76	CJAA	3625	14-May-15
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.04	CJAA	3750	9-Jun-15
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.04	CJAA	3750	9-Jun-15
% of useful life requirement	Automatic	N	N	8275/45 R2(	3.27	CNRB	6000	3-Jun-15
% of useful life requirement	Automatic	N	N	8255/55 R1:	3.7	CGRA	5250	13-May-15
% of useful life requirement	Automatic	N	N	8255/55 R1:	3.7	CGRA	5250	13-May-15
% of useful life requirement	Automatic	N	N	8255/55 R1:	3.7	CGRA	5250	13-May-15
% of useful life requirement	Automatic	N	N	8255/55 R1:	3.7	CGRA	5250	13-May-15
% of useful life requirement	Automatic	N	N	8255/55 R1:	3.7	CGRA	5250	13-May-15
% of useful life requirement	Automatic	N	N	8245/40 R1:	2.85	CPMB	4000	24-Jul-15
% of useful life requirement	Automatic	N	N	8245/40 R1:	2.85	CPMB	4000	24-Jul-15
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	16-Apr-15
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	16-Apr-15
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	16-Apr-15
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	16-Apr-15
% of useful life requirement	Automatic	N	N	8245/45 R1:	2.52	CPNB	4500	8-Apr-15
% of useful life requirement	Automatic	N	N	8245/45 R1:	2.52	CPNB	4500	8-Apr-15
% of useful life requirement	Automatic	N	N	8245/45 R1:	2.52	CPNB	4500	8-Apr-15
% of useful life requirement	Automatic	N	N	8275/45 R2(	3.27	CNRB	5250	7-May-15
% of useful life requirement	Automatic	N	N	8275/45 R2(	3.27	CNRB	5250	7-May-15
% of useful life requirement	Automatic	N	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15
% of useful life requirement	Automatic	N	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15
% of useful life requirement	Automatic	N	N	6235/40 R1:	3.14	CPPA	3500	7-Oct-15
% of useful life requirement	Automatic	N	N	6235/40 R1:	3.14	CPPA	3500	7-Oct-15
% of useful life requirement	Automatic	N	N	6235/40 R1:	3.14	CPPA	3500	7-Oct-15
% of useful life requirement	Automatic	N	N	6235/40 R1:	3.14	CPPA	3500	7-Oct-15
% of useful life requirement	Automatic	N	N	6235/40 R1:	3.14	CPPA	3500	7-Oct-15
% of useful life requirement	Automatic	N	N	6235/40 R1:	3.14	CPPA	3500	7-Oct-15
% of useful life requirement	Automatic	N	N	6235/40 R1:	3.14	CPPA	3500	7-Oct-15
% of useful life requirement	Automatic	N	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15
% of useful life requirement	Automatic	N	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15
% of useful life requirement	Automatic	N	N	6225/40R18	3.14	CBFA	3375	15-Apr-15
% of useful life requirement	Automatic	N	N	6225/40R18	3.14	CBFA	3375	15-Apr-15
% of useful life requirement	Automatic	N	N	6225/40R18	3.14	CBFA	3375	15-Apr-15
% of useful life requirement	Automatic	N	N	6225/40R18	3.14	CBFA	3375	15-Apr-15
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	24-Jul-15
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	24-Jul-15
% of useful life requirement	Automatic	N	N	6235/45 R1:	3.04	CKRA	3750	24-Jul-15
% of useful life requirement	Automatic	N	N	8275/45 R2(	3.7	CTWB	5500	24-Jul-15
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.23	CPRA	3375	28-Jul-15
% of useful life requirement	Automatic	N	N	6205/55 R1(	3.23	CPRA	3375	28-Jul-15

% of useful life require	Automatic	N	N	6215/65 R1	3.54	CCTA	3875	13-Aug-15
% of useful life require	Automatic	N	N	6215/65 R1	3.54	CCTA	3875	13-Aug-15
% of useful life require	Automatic	N	N	6195/65 R1	3.69	CBPA	3250	29-Jul-15
% of useful life require	Automatic	N	N	6195/65 R1	3.69	CBPA	3250	29-Jul-15
% of useful life require	Automatic	N	N	8245/40 R1	2.85	CPMB	4000	16-Jul-15
% of useful life require	Automatic	N	N	8245/40 R1	2.85	CPMB	4000	16-Jul-15
% of useful life require	Automatic	N	N	8245/40 R1	2.85	CPMB	4000	16-Jul-15
% of useful life require	Automatic	N	N	6205/55 R1	3.04	CJAA	3750	11-May-15
% of useful life require	Automatic	N	N	6205/55 R1	3.04	CJAA	3750	11-May-15
% of useful life require	Automatic	N	N	6205/55 R1	3.04	CJAA	3750	11-May-15
% of useful life require	Automatic	N	N	8255/55 R1	3.7	CGRA	5250	1-Sep-15
% of useful life require	Automatic	N	N	8245/45 R1	3.08	CAED	4250	11-May-15
% of useful life require	Automatic	N	N	8245/45 R1	3.08	CAED	4250	11-May-15
% of useful life require	Automatic	N	N	8255/55 R1	3.27	CNRB	5250	11-May-15
% of useful life require	Continuou	N	N	1245/40 R1	3.09	CAED	3875	17-Jun-15
% of useful life require	Continuou	N	N	1245/40 R1	3.09	CAED	3875	17-Jun-15
% of useful life require	Continuou	N	N	1245/40 R1	3.09	CAED	3875	17-Jun-15
% of useful life require	Automatic	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
% of useful life require	Automatic	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
% of useful life require	Automatic	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
% of useful life require	Automatic	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
% of useful life require	Automatic	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
% of useful life require	Automatic	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
% of useful life require	Automatic	N	N	8245/40 R1	2.85	CPMB	4500	8-May-15
% of useful life require	Automatic	N	N	8245/40 R1	2.85	CPMB	4500	8-May-15
% of useful life require	Automatic	N	N	8245/40 R1	2.85	CPMB	4500	8-May-15
% of useful life require	Automatic	N	N	8275/45 R2	3.7	CTWB	5500	24-Jul-15
% of useful life require	Automatic	N	N	8245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life require	Automatic	N	N	8245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life require	Automatic	N	N	8245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life require	Automatic	N	N	8245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life require	Automatic	N	N	6225/40 R1	3.14	CBFA	3375	11-May-15
% of useful life require	Automatic	N	N	6225/40 R1	3.14	CBFA	3375	11-May-15
% of useful life require	Automatic	N	N	6225/40 R1	3.14	CBFA	3375	11-May-15
% of useful life require	Automatic	N	N	6225/40 R1	3.14	CBFA	3375	11-May-15
% of useful life require	Automatic	N	N	6225/45 R1	3.23	CPKA	3375	1-Sep-15
% of useful life require	Automatic	N	N	6225/45 R1	3.23	CPKA	3375	1-Sep-15
% of useful life require	Automatic	N	N	8265/35 R2	2.85	CTUA	4500	31-Aug-15
% of useful life require	Automatic	N	N	8265/35 R2	2.85	CTUA	4500	31-Aug-15
% of useful life require	Automatic	N	N	8265/35 R2	2.85	CTUA	4500	31-Aug-15
% of useful life require	Automatic	N	N	8265/35 R2	2.85	CTUA	4500	31-Aug-15
% of useful life require	Automatic	N	N	6195/65 R1	3.69	CBPA	3250	11-May-15
% of useful life require	Automatic	N	N	6195/65 R1	3.69	CBPA	3250	11-May-15
% of useful life require	Automatic	N	N	6195/65 R1	3.69	CBPA	3250	11-May-15
% of useful life require	Automatic	N	N	6195/65 R1	3.69	CBPA	3250	11-May-15

% of useful life requirement	N	N	6195/65 R1	3.69	CBPA	3250	11-May-15	
% of useful life requirement	N	N	6195/65 R1	3.69	CBPA	3250	11-May-15	
% of useful life requirement	N	N	6215/60 R1	3.23	CPKA	3625	24-Jul-15	
% of useful life requirement	N	N	6215/60 R1	3.23	CPKA	3625	24-Jul-15	
% of useful life requirement	N	N	6215/60 R1	3.23	CPKA	3625	24-Jul-15	
% of useful life requirement	N	N	6215/60 R1	3.23	CPKA	3625	24-Jul-15	
% of useful life requirement	N	N	6205/55 R1	2.76	CJAA	3625	14-May-15	
% of useful life requirement	N	N	6205/55 R1	2.76	CJAA	3625	14-May-15	
% of useful life requirement	N	N	6205/55 R1	3.04	CJAA	3750	9-Jun-15	
% of useful life requirement	N	N	6205/55 R1	3.04	CJAA	3750	9-Jun-15	
% of useful life requirement	N	N	8275/45 R2	3.27	CNRB	6000	3-Jun-15	
% of useful life requirement	N	N	8275/45 R2	3.27	CNRB	6000	3-Jun-15	
% of useful life requirement	N	N	8275/45 R2	3.27	CNRB	6000	3-Jun-15	
% of useful life requirement	N	N	8275/45 R2	3.27	CNRB	6000	3-Jun-15	
% of useful life requirement	N	N	8275/45 R2	3.27	CNRB	6000	3-Jun-15	
% of useful life requirement	N	N	8275/45 R2	3.27	CNRB	6000	3-Jun-15	
% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15	
% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15	
% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15	
% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15	
% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15	
% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15	
% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4000	24-Jul-15	
% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4000	24-Jul-15	
% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4000	24-Jul-15	
% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4000	24-Jul-15	
% of useful life requirement	N	N	6235/45 R1	3.04	CKRA	3750	16-Apr-15	
% of useful life requirement	N	N	6235/45 R1	3.04	CKRA	3750	16-Apr-15	
% of useful life requirement	N	N	8245/45 R1	2.52	CPNB	4500	8-Apr-15	
% of useful life requirement	N	N	8245/45 R1	2.52	CPNB	4500	8-Apr-15	
% of useful life requirement	N	N	8245/45 R1	2.52	CPNB	4500	8-Apr-15	
% of useful life requirement	N	N	8245/45 R1	2.52	CPNB	4500	8-Apr-15	
% of useful life requirement	N	N	8275/45 R2	3.27	CNRB	5250	7-May-15	
% of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15	
% of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15	
% of useful life requirement	N	N	6235/40 R1	3.14	CPPA	3500	7-Oct-15	
% of useful life requirement	N	N	6235/40 R1	3.14	CPPA	3500	7-Oct-15	
% of useful life requirement	N	N	6235/40 R1	3.14	CPPA	3500	7-Oct-15	
% of useful life requirement	N	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15	
% of useful life requirement	N	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15	
% of useful life requirement	N	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15	
% of useful life requirement	N	N	6225/40R18	3.14	CBFA	3375	15-Apr-15	
% of useful life requirement	N	N	6225/40R18	3.14	CBFA	3375	15-Apr-15	
% of useful life requirement	N	N	6235/45 R1	3.04	CKRA	3750	24-Jul-15	
% of useful life requirement	N	N	6235/45 R1	3.04	CKRA	3750	24-Jul-15	

% of useful life require	Automatic	N	N	6235/45 R1	3.04	CKRA	3750	24-Jul-15
% of useful life require	Automatic	N	N	8275/45 R2	3.7	CTWB	5500	24-Jul-15
% of useful life require	Automatic	N	N	6205/55 R1	3.23	CPRA	3375	28-Jul-15
% of useful life require	Automatic	N	N	6215/65 R1	3.54	CCTA	3875	13-Aug-15
% of useful life require	Automatic	N	N	6215/65 R1	3.54	CCTA	3875	13-Aug-15
% of useful life require	Automatic	N	N	6215/65 R1	3.54	CCTA	3875	13-Aug-15
% of useful life require	Automatic	N	N	6215/65 R1	3.54	CCTA	3875	13-Aug-15
% of useful life require	Automatic	N	N	6215/65 R1	3.54	CCTA	3875	13-Aug-15
% of useful life require	Automatic	N	N	6195/65 R1	3.69	CBPA	3250	29-Jul-15
% of useful life require	Automatic	N	N	6195/65 R1	3.69	CBPA	3250	29-Jul-15
% of useful life require	Automatic	N	N	6195/65 R1	3.69	CBPA	3250	29-Jul-15
% of useful life require	Automatic	N	N	6195/65 R1	3.69	CBPA	3250	29-Jul-15
% of useful life require	Automatic	N	N	6195/65 R1	3.69	CBPA	3250	29-Jul-15
% of useful life require	Automatic	N	N	8245/40 R1	2.85	CPMB	4000	16-Jul-15
% of useful life require	Automatic	N	N	8245/40 R1	2.85	CPMB	4000	16-Jul-15
% of useful life require	Automatic	N	N	8245/40 R1	2.85	CPMB	4000	16-Jul-15
% of useful life require	Automatic	N	N	6205/55 R1	3.04	CJAA	3750	11-May-15
% of useful life require	Automatic	N	N	6205/55 R1	3.04	CJAA	3750	11-May-15
% of useful life require	Automatic	N	N	6205/55 R1	3.04	CJAA	3750	11-May-15
% of useful life require	Automatic	N	N	6205/55 R1	3.04	CJAA	3750	11-May-15
% of useful life require	Automatic	N	N	6205/55 R1	3.04	CJAA	3750	11-May-15
% of useful life require	Automatic	N	N	8245/45 R1	3.08	CAED	4250	11-May-15
% of useful life require	Automatic	N	N	8245/45 R1	3.08	CAED	4250	11-May-15
% of useful life require	Automatic	N	N	8245/45 R1	3.08	CAED	4250	11-May-15
% of useful life require	Automatic	N	N	8245/45 R1	3.08	CAED	4250	11-May-15
% of useful life require	Automatic	N	N	8255/55 R1	3.27	CNRB	5250	11-May-15
% of useful life require	Automatic	N	N	8255/55 R1	3.27	CNRB	5250	11-May-15
% of useful life require	Automatic	N	N	8255/55 R1	3.27	CNRB	5250	11-May-15
% of useful life require	Automatic	N	N	8255/55 R1	3.27	CNRB	5250	11-May-15
% of useful life require	Automatic	N	N	8255/55 R1	3.27	CNRB	5250	11-May-15
% of useful life require	Continuou	N	N	1245/40 R1	3.09	CAED	3875	17-Jun-15
% of useful life require	Continuou	N	N	1245/40 R1	3.09	CAED	3875	17-Jun-15
% of useful life require	Continuou	N	N	1245/40 R1	3.09	CAED	3875	17-Jun-15
% of useful life require	Continuou	N	N	1245/40 R1	3.09	CAED	3875	17-Jun-15
% of useful life require	Automatic	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
% of useful life require	Automatic	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
% of useful life require	Automatic	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
% of useful life require	Automatic	N	N	8245/40 R1	2.85	CPMB	4500	8-May-15
% of useful life require	Automatic	N	N	8245/40 R1	2.85	CPMB	4500	8-May-15
% of useful life require	Automatic	N	N	8275/45 R2	3.7	CTWB	5500	24-Jul-15
% of useful life require	Automatic	N	N	8275/45 R2	3.7	CTWB	5500	24-Jul-15
% of useful life require	Automatic	N	N	8245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life require	Automatic	N	N	8245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life require	Automatic	N	N	8245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life require	Automatic	N	N	8245/45 R1	2.52	CPNB	4500	13-May-15

% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life requirement	N	N	6	225/40 R1	3.14	CBFA	3375	11-May-15
% of useful life requirement	N	N	6	225/40 R1	3.14	CBFA	3375	11-May-15
% of useful life requirement	N	N	6	225/40 R1	3.14	CBFA	3375	11-May-15
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	1-Sep-15
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	1-Sep-15
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	1-Sep-15
% of useful life requirement	N	N	6	225/45 R1	3.23	CPKA	3375	1-Sep-15
% of useful life requirement	N	N	8	265/35 R2	2.85	CTUA	4500	31-Aug-15
% of useful life requirement	N	N	8	265/35 R2	2.85	CTUA	4500	31-Aug-15
% of useful life requirement	N	N	8	265/35 R2	2.85	CTUA	4500	31-Aug-15
% of useful life requirement	N	N	6	195/65 R1	3.69	CBPA	3250	11-May-15
% of useful life requirement	N	N	6	195/65 R1	3.69	CBPA	3250	11-May-15
% of useful life requirement	N	N	6	195/65 R1	3.69	CBPA	3250	11-May-15
% of useful life requirement	N	N	6	215/60 R1	3.23	CPKA	3625	24-Jul-15
% of useful life requirement	N	N	6	215/60 R1	3.23	CPKA	3625	24-Jul-15
Manual	N	N	6	205/55 R1	2.76	CJAA	3625	14-May-15
% of useful life requirement	N	N	6	205/55 R1	3.04	CJAA	3750	9-Jun-15
% of useful life requirement	N	N	6	205/55 R1	3.04	CJAA	3750	9-Jun-15
% of useful life requirement	N	N	6	205/55 R1	3.04	CJAA	3750	9-Jun-15
% of useful life requirement	N	N	6	205/55 R1	3.04	CJAA	3750	9-Jun-15
% of useful life requirement	N	N	6	205/55 R1	3.04	CJAA	3750	9-Jun-15
% of useful life requirement	N	N	6	205/55 R1	3.04	CJAA	3750	9-Jun-15
% of useful life requirement	N	N	6	205/55 R1	3.04	CJAA	3750	9-Jun-15
% of useful life requirement	N	N	8	275/45 R2	3.27	CNRB	6000	3-Jun-15
% of useful life requirement	N	N	8	275/45 R2	3.27	CNRB	6000	3-Jun-15
% of useful life requirement	N	N	8	275/45 R2	3.27	CNRB	6000	3-Jun-15
% of useful life requirement	N	N	8	275/45 R2	3.27	CNRB	6000	3-Jun-15
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	13-May-15
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	13-May-15
% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4000	24-Jul-15
% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4000	24-Jul-15
% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4000	24-Jul-15
% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	16-Apr-15
% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	16-Apr-15
% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	16-Apr-15
% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	16-Apr-15
% of useful life requirement	N	N	6	235/45 R1	3.04	CKRA	3750	16-Apr-15
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	8-Apr-15
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	8-Apr-15
% of useful life requirement	N	N	8	275/45 R2	3.27	CNRB	5250	7-May-15

Automatic	% of useful life requirement	N	N	8275/45 R2(	3.27	CNRB	5250	7-May-15
Automatic	% of useful life requirement	N	N	8275/45 R2(	3.27	CNRB	5250	7-May-15
Automatic	% of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	N	6235/40 R1	3.14	CPPA	3500	7-Oct-15
Automatic	% of useful life requirement	N	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15
Automatic	% of useful life requirement	N	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15
Automatic	% of useful life requirement	N	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15
Automatic	% of useful life requirement	N	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15
Automatic	% of useful life requirement	N	N	6225/40R18	3.14	CBFA	3375	15-Apr-15
Automatic	% of useful life requirement	N	N	6225/40R18	3.14	CBFA	3375	15-Apr-15
Automatic	% of useful life requirement	N	N	6225/40R18	3.14	CBFA	3375	15-Apr-15
Automatic	% of useful life requirement	N	N	6225/40R18	3.14	CBFA	3375	15-Apr-15
Automatic	% of useful life requirement	N	N	6225/40R18	3.14	CBFA	3375	15-Apr-15
Automatic	% of useful life requirement	N	N	6235/45 R1	3.04	CKRA	3750	24-Jul-15
Automatic	% of useful life requirement	N	N	6235/45 R1	3.04	CKRA	3750	24-Jul-15
Automatic	% of useful life requirement	N	N	8275/45 R2(	3.7	CTWB	5500	24-Jul-15
Automatic	% of useful life requirement	N	N	8275/45 R2(	3.7	CTWB	5500	24-Jul-15
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	N	6215/65 R1(	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	N	6215/65 R1(	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	N	6215/65 R1(	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	N	6215/65 R1(	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	N	6195/65 R1!	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4000	16-Jul-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4000	16-Jul-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4000	16-Jul-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4000	16-Jul-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4000	16-Jul-15
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.04	CJAA	3750	11-May-15
Automatic	% of useful life requirement	N	N	6205/55 R1(	3.04	CJAA	3750	11-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	1-Sep-15
Automatic	% of useful life requirement	N	N	8245/45 R1	3.08	CAED	4250	11-May-15
Automatic	% of useful life requirement	N	N	8245/45 R1	3.08	CAED	4250	11-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.27	CNRB	5250	11-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.27	CNRB	5250	11-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.27	CNRB	5250	11-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.27	CNRB	5250	11-May-15
Continuou	% of useful life requirement	N	N	1245/40 R1	3.09	CAED	3875	17-Jun-15

Continuou	% of useful life requirement	N	N	1245/40 R1	3.09	CAED	3875	17-Jun-15
Automatic	% of useful life requirement	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
Automatic	% of useful life requirement	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
Automatic	% of useful life requirement	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
Automatic	% of useful life requirement	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
Automatic	% of useful life requirement	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4500	8-May-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4500	8-May-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4500	8-May-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4500	8-May-15
Automatic	% of useful life requirement	N	N	8275/45 R2	3.7	CTWB	5500	24-Jul-15
Automatic	% of useful life requirement	N	N	8245/45 R1	2.52	CPNB	4500	13-May-15
Automatic	% of useful life requirement	N	N	6225/40 R1	3.14	CBFA	3375	11-May-15
Automatic	% of useful life requirement	N	N	6225/40 R1	3.14	CBFA	3375	11-May-15
Automatic	% of useful life requirement	N	N	6225/40 R1	3.14	CBFA	3375	11-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	1-Sep-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	1-Sep-15
Automatic	% of useful life requirement	N	N	6225/45 R1	3.23	CPKA	3375	1-Sep-15
Automatic	% of useful life requirement	N	N	6225/45 R1	3.23	CPKA	3375	1-Sep-15
Automatic	% of useful life requirement	N	N	6225/45 R1	3.23	CPKA	3375	1-Sep-15
Automatic	% of useful life requirement	N	N	8265/35 R2	2.85	CTUA	4500	31-Aug-15
Automatic	% of useful life requirement	N	N	8265/35 R2	2.85	CTUA	4500	31-Aug-15
Automatic	% of useful life requirement	N	N	8265/35 R2	2.85	CTUA	4500	31-Aug-15
Automatic	% of useful life requirement	N	N	6195/65 R1	3.69	CBPA	3250	11-May-15
Automatic	% of useful life requirement	N	N	6195/65 R1	3.69	CBPA	3250	11-May-15
Automatic	% of useful life requirement	N	N	6215/60 R1	3.23	CPKA	3625	24-Jul-15
Automatic	% of useful life requirement	N	N	6215/60 R1	3.23	CPKA	3625	24-Jul-15
Manual	% of useful life requirement	N	N	6205/55 R1	2.76	CJAA	3625	14-May-15
Manual	% of useful life requirement	N	N	6205/55 R1	2.76	CJAA	3625	14-May-15
Manual	% of useful life requirement	N	N	6205/55 R1	2.76	CJAA	3625	14-May-15
Manual	% of useful life requirement	N	N	6205/55 R1	2.76	CJAA	3625	14-May-15
Manual	% of useful life requirement	N	N	6205/55 R1	2.76	CJAA	3625	14-May-15
Automatic	% of useful life requirement	N	N	6205/55 R1	3.04	CJAA	3750	9-Jun-15
Automatic	% of useful life requirement	N	N	8275/45 R2	3.27	CNRB	6000	3-Jun-15
Automatic	% of useful life requirement	N	N	8275/45 R2	3.27	CNRB	6000	3-Jun-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4000	24-Jul-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4000	24-Jul-15

Automatic	% of useful life requirement	N	8	245/40 R1	2.85	CPMB	4000	24-Jul-15
Automatic	% of useful life requirement	N	6	235/45 R1	3.04	CKRA	3750	16-Apr-15
Automatic	% of useful life requirement	N	6	235/45 R1	3.04	CKRA	3750	16-Apr-15
Automatic	% of useful life requirement	N	6	235/45 R1	3.04	CKRA	3750	16-Apr-15
Automatic	% of useful life requirement	N	6	235/45 R1	3.04	CKRA	3750	16-Apr-15
Automatic	% of useful life requirement	N	8	275/45 R2	3.27	CNRB	5250	7-May-15
Automatic	% of useful life requirement	N	8	275/45 R2	3.27	CNRB	5250	7-May-15
Automatic	% of useful life requirement	N	8	275/45 R2	3.27	CNRB	5250	7-May-15
Automatic	% of useful life requirement	N	6	235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	6	235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	6	235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	6	235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	6	235/40 R1	3.14	CPPA	3500	7-Oct-15
Automatic	% of useful life requirement	N	6	235/40 R1	3.14	CPPA	3500	7-Oct-15
Automatic	% of useful life requirement	N	6	235/40 R1	3.14	CPPA	3500	7-Oct-15
Automatic	% of useful life requirement	N	6	225/40R18	3.14	CBFA	3375	15-Apr-15
Automatic	% of useful life requirement	N	6	225/40R18	3.14	CBFA	3375	15-Apr-15
Automatic	% of useful life requirement	N	6	225/40R18	3.14	CBFA	3375	15-Apr-15
Automatic	% of useful life requirement	N	6	235/45 R1	3.04	CKRA	3750	24-Jul-15
Automatic	% of useful life requirement	N	6	235/45 R1	3.04	CKRA	3750	24-Jul-15
Automatic	% of useful life requirement	N	6	235/45 R1	3.04	CKRA	3750	24-Jul-15
Automatic	% of useful life requirement	N	8	275/45 R2	3.7	CTWB	5500	24-Jul-15
Automatic	% of useful life requirement	N	6	205/55 R1	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	6	205/55 R1	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	6	215/65 R1	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	6	215/65 R1	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	6	215/65 R1	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	6	215/65 R1	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	6	195/65 R1	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	6	195/65 R1	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	6	195/65 R1	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	6	195/65 R1	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	8	245/40 R1	2.85	CPMB	4000	16-Jul-15
Automatic	% of useful life requirement	N	8	245/40 R1	2.85	CPMB	4000	16-Jul-15
Automatic	% of useful life requirement	N	6	205/55 R1	3.04	CJAA	3750	11-May-15
Automatic	% of useful life requirement	N	6	205/55 R1	3.04	CJAA	3750	11-May-15
Automatic	% of useful life requirement	N	6	205/55 R1	3.04	CJAA	3750	11-May-15
Automatic	% of useful life requirement	N	8	245/45 R1	3.08	CAED	4250	11-May-15
Automatic	% of useful life requirement	N	8	245/45 R1	3.08	CAED	4250	11-May-15
Automatic	% of useful life requirement	N	8	245/45 R1	3.08	CAED	4250	11-May-15
Automatic	% of useful life requirement	N	8	245/45 R1	3.08	CAED	4250	11-May-15
Automatic	% of useful life requirement	N	8	255/55 R1	3.27	CNRB	5250	11-May-15
Automatic	% of useful life requirement	N	8	255/55 R1	3.27	CNRB	5250	11-May-15
Automatic	% of useful life requirement	N	8	255/55 R1	3.27	CNRB	5250	11-May-15
Continuou	% of useful life requirement	N	1	245/40 R1	3.09	CAED	3875	17-Jun-15

Continuou	% of useful life requirement	N	N	1245/40 R1	3.09	CAED	3875	17-Jun-15
Automatic	% of useful life requirement	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
Automatic	% of useful life requirement	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
Automatic	% of useful life requirement	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
Automatic	% of useful life requirement	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
Automatic	% of useful life requirement	N	N	7195/65 R1	3.23	CNLA	3625	23-Apr-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4500	8-May-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4500	8-May-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4500	8-May-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4500	8-May-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4500	8-May-15
Automatic	% of useful life requirement	N	N	8245/40 R1	2.85	CPMB	4500	8-May-15
Automatic	% of useful life requirement	N	N	8275/45 R2	3.7	CTWB	5500	24-Jul-15
Automatic	% of useful life requirement	N	N	8275/45 R2	3.7	CTWB	5500	24-Jul-15
Automatic	% of useful life requirement	N	N	8245/45 R1	2.52	CPNB	4500	13-May-15
Automatic	% of useful life requirement	N	N	8245/45 R1	2.52	CPNB	4500	13-May-15
Automatic	% of useful life requirement	N	N	8245/45 R1	2.52	CPNB	4500	13-May-15
Automatic	% of useful life requirement	N	N	6225/40 R1	3.14	CBFA	3375	11-May-15
Automatic	% of useful life requirement	N	N	6225/40 R1	3.14	CBFA	3375	11-May-15
Automatic	% of useful life requirement	N	N	6225/40 R1	3.14	CBFA	3375	11-May-15
Automatic	% of useful life requirement	N	N	6225/40 R1	3.14	CBFA	3375	11-May-15
Automatic	% of useful life requirement	N	N	6225/45 R1	3.23	CPKA	3375	1-Sep-15
Automatic	% of useful life requirement	N	N	6225/45 R1	3.23	CPKA	3375	1-Sep-15
Automatic	% of useful life requirement	N	N	6225/45 R1	3.23	CPKA	3375	1-Sep-15
Automatic	% of useful life requirement	N	N	6225/45 R1	3.23	CPKA	3375	1-Sep-15
Automatic	% of useful life requirement	N	N	8265/35 R2	2.85	CTUA	4500	31-Aug-15
Automatic	% of useful life requirement	N	N	8265/35 R2	2.85	CTUA	4500	31-Aug-15
Automatic	% of useful life requirement	N	N	6195/65 R1	3.69	CBPA	3250	11-May-15
Automatic	% of useful life requirement	N	N	6195/65 R1	3.69	CBPA	3250	11-May-15
Automatic	% of useful life requirement	N	N	6195/65 R1	3.69	CBPA	3250	11-May-15
Automatic	% of useful life requirement	N	N	6215/60 R1	3.23	CPKA	3625	24-Jul-15
Manual	% of useful life requirement	N	N	6205/55 R1	2.76	CJAA	3625	14-May-15
Manual	% of useful life requirement	N	N	6205/55 R1	2.76	CJAA	3625	14-May-15
Manual	% of useful life requirement	N	N	6205/55 R1	2.76	CJAA	3625	14-May-15
Automatic	% of useful life requirement	N	N	6205/55 R1	3.04	CJAA	3750	9-Jun-15
Automatic	% of useful life requirement	N	N	6205/55 R1	3.04	CJAA	3750	9-Jun-15
Automatic	% of useful life requirement	N	N	6205/55 R1	3.04	CJAA	3750	9-Jun-15
Automatic	% of useful life requirement	N	N	6205/55 R1	3.04	CJAA	3750	9-Jun-15
Automatic	% of useful life requirement	N	N	6205/55 R1	3.04	CJAA	3750	9-Jun-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15
Automatic	% of useful life requirement	N	N	8255/55 R1	3.7	CGRA	5250	13-May-15

Automatic	% of useful life requirement	N	8255/55 R1	3.7	CGRA	5250	13-May-15
Automatic	% of useful life requirement	N	8245/40 R1	2.85	CPMB	4000	24-Jul-15
Automatic	% of useful life requirement	N	8245/40 R1	2.85	CPMB	4000	24-Jul-15
Automatic	% of useful life requirement	N	8245/40 R1	2.85	CPMB	4000	24-Jul-15
Automatic	% of useful life requirement	N	8245/40 R1	2.85	CPMB	4000	24-Jul-15
Automatic	% of useful life requirement	N	6235/45 R1	3.04	CKRA	3750	16-Apr-15
Automatic	% of useful life requirement	N	8245/45 R1	2.52	CPNB	4500	8-Apr-15
Automatic	% of useful life requirement	N	8245/45 R1	2.52	CPNB	4500	8-Apr-15
Automatic	% of useful life requirement	N	8245/45 R1	2.52	CPNB	4500	8-Apr-15
Automatic	% of useful life requirement	N	8245/45 R1	2.52	CPNB	4500	8-Apr-15
Automatic	% of useful life requirement	N	8245/45 R1	2.52	CPNB	4500	8-Apr-15
Automatic	% of useful life requirement	N	8275/45 R2	3.27	CNRB	5250	7-May-15
Automatic	% of useful life requirement	N	8275/45 R2	3.27	CNRB	5250	7-May-15
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	6235/45 R1	3.14	CBFA	3875	27-Jul-15
Automatic	% of useful life requirement	N	6235/40 R1	3.14	CPPA	3500	7-Oct-15
Automatic	% of useful life requirement	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15
Automatic	% of useful life requirement	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15
Automatic	% of useful life requirement	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15
Automatic	% of useful life requirement	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15
Automatic	% of useful life requirement	N	8295/35 R2	3.27	CNRB	6000	7-Oct-15
Automatic	% of useful life requirement	N	6235/45 R1	3.04	CKRA	3750	24-Jul-15
Automatic	% of useful life requirement	N	6235/45 R1	3.04	CKRA	3750	24-Jul-15
Automatic	% of useful life requirement	N	6235/45 R1	3.04	CKRA	3750	24-Jul-15
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	24-Jul-15
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	24-Jul-15
Automatic	% of useful life requirement	N	8275/45 R2	3.7	CTWB	5500	24-Jul-15
Automatic	% of useful life requirement	N	6205/55 R1	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	6205/55 R1	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	6205/55 R1	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	6205/55 R1	3.23	CPRA	3375	28-Jul-15
Automatic	% of useful life requirement	N	6215/65 R1	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	6215/65 R1	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	6215/65 R1	3.54	CCTA	3875	13-Aug-15
Automatic	% of useful life requirement	N	6195/65 R1	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	6195/65 R1	3.69	CBPA	3250	29-Jul-15
Automatic	% of useful life requirement	N	8245/40 R1	2.85	CPMB	4000	16-Jul-15
Automatic	% of useful life requirement	N	8245/40 R1	2.85	CPMB	4000	16-Jul-15
Automatic	% of useful life requirement	N	6205/55 R1	3.04	CJAA	3750	11-May-15
Automatic	% of useful life requirement	N	8245/45 R1	3.08	CAED	4250	11-May-15
Automatic	% of useful life requirement	N	8245/45 R1	3.08	CAED	4250	11-May-15
Automatic	% of useful life requirement	N	8245/45 R1	3.08	CAED	4250	11-May-15
Automatic	% of useful life requirement	N	8255/55 R1	3.27	CNRB	5250	11-May-15
Automatic	% of useful life requirement	N	8255/55 R1	3.27	CNRB	5250	11-May-15

% of useful life requirement	N	N	8	255/55 R1	3.27	CNRB	5250	11-May-15
% of useful life requirement	N	N	1	245/40 R1	3.09	CAED	3875	17-Jun-15
% of useful life requirement	N	N	1	245/40 R1	3.09	CAED	3875	17-Jun-15
% of useful life requirement	N	N	1	245/40 R1	3.09	CAED	3875	17-Jun-15
% of useful life requirement	N	N	1	245/40 R1	3.09	CAED	3875	17-Jun-15
% of useful life requirement	N	N	7	195/65 R1	3.23	CNLA	3625	23-Apr-15
% of useful life requirement	N	N	7	195/65 R1	3.23	CNLA	3625	23-Apr-15
% of useful life requirement	N	N	7	195/65 R1	3.23	CNLA	3625	23-Apr-15
% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4500	8-May-15
% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4500	8-May-15
% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4500	8-May-15
% of useful life requirement	N	N	8	275/45 R2	3.7	CTWB	5500	24-Jul-15
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life requirement	N	N	8	245/45 R1	2.52	CPNB	4500	13-May-15
% of useful life requirement	N	N	6	225/40 R1	3.14	CBFA	3375	11-May-15
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	1-Sep-15
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	1-Sep-15
% of useful life requirement	N	N	6	225/45 R1	3.23	CPKA	3375	1-Sep-15
% of useful life requirement	N	N	8	265/35 R2	2.85	CTUA	4500	31-Aug-15
% of useful life requirement	N	N	8	265/35 R2	2.85	CTUA	4500	31-Aug-15
% of useful life requirement	N	N	8	265/35 R2	2.85	CTUA	4500	31-Aug-15
% of useful life requirement	N	N	6	195/65 R1	3.69	CBPA	3250	11-May-15
% of useful life requirement	N	N	6	195/65 R1	3.69	CBPA	3250	11-May-15
% of useful life requirement	N	N	6	215/60 R1	3.23	CPKA	3625	24-Jul-15
% of useful life requirement	N	N	6	215/60 R1	3.23	CPKA	3625	24-Jul-15
% of useful life requirement	N	N	6	215/60 R1	3.23	CPKA	3625	24-Jul-15
% of useful life requirement	N	N	6	215/60 R1	3.23	CPKA	3625	24-Jul-15
% of useful life requirement	N	N	6	215/60 R1	3.23	CPKA	3625	24-Jul-15
% of useful life requirement	N	N	6	215/60 R1	3.23	CPKA	3625	24-Jul-15
% of useful life requirement	N	N	6	215/60 R1	3.23	CPKA	3625	24-Jul-15
% of useful life requirement	N	N	6	205/55 R1	2.76	CJAA	3625	14-May-15
% of useful life requirement	N	N	6	205/55 R1	2.76	CJAA	3625	14-May-15
% of useful life requirement	N	N	6	205/55 R1	2.76	CJAA	3625	14-May-15
% of useful life requirement	N	N	6	205/55 R1	3.04	CJAA	3750	9-Jun-15
% of useful life requirement	N	N	8	275/45 R2	3.27	CNRB	6000	3-Jun-15
% of useful life requirement	N	N	8	275/45 R2	3.27	CNRB	6000	3-Jun-15
% of useful life requirement	N	N	8	275/45 R2	3.27	CNRB	6000	3-Jun-15
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	13-May-15
% of useful life requirement	N	N	8	255/55 R1	3.7	CGRA	5250	13-May-15
% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4000	24-Jul-15
% of useful life requirement	N	N	8	245/40 R1	2.85	CPMB	4000	24-Jul-15

Build Date	VisualMIL	Command MIL Status	Active TroubleCode Status	Readiness Status	Veh Reject	Veh Reject Comment	TroubleCode1	TroubleCode2	TroubleCode3
11-Jan-14	N	N	N	Y	Vehicle wa-		-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-		-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-		-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-		-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-		-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-		-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-		-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-		-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-		-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-		-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-		-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-		-	-	-
20-May-14	N	N	N	Y	Vehicle wa-		-	-	-
20-May-14	N	N	N	Y	Vehicle wa-		-	-	-
20-May-14	N	N	N	Y	Vehicle wa-		-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-		-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-		-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-		-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-		-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-		-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-		-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-		-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-		-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-		-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-		-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-		-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-		-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-		-	-	-
14-May-14	N	N	N	Y	Vehicle wa-		-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-		-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-		-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-		-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-		-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-		-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-		-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-		-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-		-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-		-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-		-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-		-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-		-	-	-

12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-

16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-

3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-

9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-

13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-

13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-

14-May-14	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	Y	Vehicle wa-	-	-	-

10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-

22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-

12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-

16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-

26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-

4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
14-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-

26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-

23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
11-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jun-13	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
20-May-14	N	N	N	Y	Vehicle wa-	-	-	-
4-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
15-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
22-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
14-May-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-

3-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
26-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
5-Aug-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
16-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
29-Jan-14	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
27-Sep-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
24-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
12-Jul-14	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
6-Nov-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
10-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
6-May-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
13-Mar-14	N	N	N	Y	Vehicle wa-	-	-	-
3-Jul-13	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
9-Feb-14	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
23-Oct-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-
4-Dec-13	N	N	N	Y	Vehicle wa-	-	-	-

TroubleCode4	TroubleCode5	TroubleCode6	Veh Comment	Veh EPAAdditional Info	Veh EPAFlag	IncompleteReady1	IncompleteReady2	IncompleteReady3	IncompleteReady4
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-

-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	No Leak Te	N	N	-	-	-	-
-	-	-	No Leak Te	N	N	-	-	-	-
-	-	-	No Leak Te	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-

-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-

-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	No Leak Te	N	N	-	-	-	-
-	-	-	No Leak Te	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-

-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
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-	-	-	Diesel engi	N	N	-	-	-	-
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-	-	-	Diesel, no	N	N	-	-	-	-
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-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
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-	-	-	Diesel engi	N	-	-	-	-
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-	-	-	No Leak Te	N	-	-	-	-
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-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	No Leak Te	N	N	-	-	-	-
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-	-	-	Diesel, no	N	N	-	-	-	-
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-	-	-	Diesel engi	N	N	-	-	-	-
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-	-	-	Diesel engi	N	N	-	-	-	-
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-	-	-	Diesel engi	N	N	-	-	-	-
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-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-

-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	No Leak Te	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-

-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Diesel, no	N	N	-	-	-	-	
-	-	-	Diesel, no	N	N	-	-	-	-	
-	-	-	Diesel, no	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	-	N	N	-	-	-	-	
-	-	-	-	N	N	-	-	-	-	
-	-	-	-	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Diesel, no	N	N	-	-	-	-	
-	-	-	Diesel, no	N	N	-	-	-	-	
-	-	-	Diesel, no	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	
-	-	-	Diesel, no	N	N	-	-	-	-	
-	-	-	Diesel, no	N	N	-	-	-	-	
-	-	-	Diesel, no	N	N	-	-	-	-	
-	-	-	Mileage sir	N	N	-	-	-	-	

-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
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-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	No Leak Te	N	N	-	-	-	-
-	-	-	No Leak Te	N	N	-	-	-	-
-	-	-	No Leak Te	N	N	-	-	-	-
-	-	-	No Leak Te	N	N	-	-	-	-
-	-	-	No Leak Te	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-

-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-

-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	-	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	Diesel engi	N	N	-	-	-	-
-	-	-	No Leak Te	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Diesel, no	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-
-	-	-	Mileage sir	N	N	-	-	-	-

Incomplet eReady5	Incomplet eReady6	Incomplet eReady7	MFR LODTest Num	VerifyTest Num	MFRTest Lab	Odometer At Test	Fed PassFail Void	CA PassFail Void	Test Date
-	-	-	201504171	1028483	Test Cente	17639	Pass	Pass	17-Apr-15
-	-	-	201504171	1028484	Test Cente	17670	Pass	Pass	17-Apr-15
-	-	-	201504151	1028449	Test Cente	22079	Pass	Pass	15-Apr-15
-	-	-	201504151	1028449	Test Cente	22079	Pass	Pass	15-Apr-15
-	-	-	201504151	1028449	Test Cente	22079	Pass	Pass	15-Apr-15
-	-	-	201504151	1028449	Test Cente	22079	Pass	Pass	15-Apr-15
-	-	-	201504151	1028450	Test Cente	22110	Pass	Pass	15-Apr-15
-	-	-	201504151	1028450	Test Cente	22110	Pass	Pass	15-Apr-15
-	-	-	201504151	1028451	Test Cente	22090	Pass	Pass	15-Apr-15
-	-	-	201504151	1028451	Test Cente	22090	Pass	Pass	15-Apr-15
-	-	-	201505081	1028831	Test Cente	11860	Fail	Pass	8-May-15
-	-	-	201505081	1028832	Test Cente	11892	Pass	Pass	8-May-15
-	-	-	201507291	1029771	Test Cente	12741	Pass	Pass	29-Jul-15
-	-	-	201507291	1029772	Test Cente	12772	Pass	Pass	29-Jul-15
-	-	-	201507291	1029772	Test Cente	12772	Pass	Pass	29-Jul-15
-	-	-	201510101	1030545	Test Cente	25572	Pass	Pass	10-Oct-15
-	-	-	201510101	1030545	Test Cente	25572	Pass	Pass	10-Oct-15
-	-	-	201510101	1030546	Test Cente	25604	Pass	Pass	10-Oct-15
-	-	-	201510101	1030547	Test Cente	25583	Pass	Pass	10-Oct-15
-	-	-	201510101	1030548	Test Cente	22639	Pass	Pass	10-Oct-15
-	-	-	201510101	1030548	Test Cente	22639	Pass	Pass	10-Oct-15
-	-	-	201504211	1029040	Test Cente	13328	Pass	Pass	21-Apr-15
-	-	-	201504211	1029040	Test Cente	13328	Pass	Pass	21-Apr-15
-	-	-	201507291	1029811	Test Cente	23376	Pass	Pass	29-Jul-15
-	-	-	201507311	1029809	Test Cente	43590	Pass	Pass	31-Jul-15
-	-	-	201508051	1029817	Test Cente	21273	Pass	Pass	8-May-15
-	-	-	201508051	1029818	Test Cente	21306	Pass	Pass	8-May-15
-	-	-	201508051	1029819	Test Cente	21284	Pass	Pass	5-Aug-15
-	-	-	201508141	1029877	Test Cente	12793	Pass	Pass	14-Aug-15
-	-	-	201508041	1029909	Test Cente	14211	Pass	Pass	4-Aug-15
-	-	-	201508051	1029911	Test Cente	14240	Pass	Pass	5-Aug-15
-	-	-	201507221	1029914	Test Cente	13189	Pass	Pass	22-Jul-15
-	-	-	201507221	1029916	Test Cente	13200	Pass	Pass	22-Jul-15
-	-	-	201507221	1029916	Test Cente	13200	Pass	Pass	22-Jul-15
-	-	-	201505131	1028800	Test Cente	17061	Pass	Pass	13-May-15
-	-	-	201505131	1028801	Test Cente	17093	Pass	Pass	13-May-15
-	-	-	201505131	1028802	Test Cente	17073	Pass	Pass	13-May-15
-	-	-	201509041	1030485	Test Cente	14713	Pass	Pass	4-Sep-15
-	-	-	201509041	1030485	Test Cente	14713	Pass	Pass	4-Sep-15
-	-	-	201509041	1030485	Test Cente	14713	Pass	Pass	4-Sep-15
-	-	-	201505141	1029061	Test Cente	17256	Pass	Pass	14-May-15

-	-	-	20150514	1029061	Test Cente	17256	Pass	Pass	14-May-15
-	-	-	20150515	1028824	Test Cente	20421	Pass	Pass	15-May-15
-	-	-	20150515	1028825	Test Cente	20432	Pass	Pass	15-May-15
-	-	-	20150515	1028826	Test Cente	20449	Pass	Pass	15-May-15
-	-	-	20150618	1029665	Test Cente	20697	Pass	Pass	18-Jun-15
-	-	-	6182015	1029669	Test Cente	20725	Pass	Pass	18-Jun-15
-	-	-	20150526	1029065	Test Cente	14396	Pass	Pass	26-May-15
-	-	-	20150526	1029065	Test Cente	14396	Pass	Pass	26-May-15
-	-	-	20150731	1029810	Test Cente	43579	Pass	Pass	31-Jul-15
-	-	-	20150514	1028814	Test Cente	12731	Pass	Pass	14-May-15
-	-	-	20150514	1028815	Test Cente	12757	Pass	Pass	14-May-15
-	-	-	20150519	1028816	Test Cente	12791	Pass	Pass	19-May-15
-	-	-	20150519	1028816	Test Cente	12791	Pass	Pass	19-May-15
-	-	-	20150519	1028816	Test Cente	12791	Pass	Pass	19-May-15
-	-	-	20150519	1028817	Test Cente	12780	Pass	Pass	19-May-15
-	-	-	20150519	1028817	Test Cente	12780	Pass	Pass	19-May-15
-	-	-	20150904	1030483	Test Cente	14702	Pass	Pass	4-Sep-15
-	-	-	20150902	1030488	Test Cente	10415	Pass	Pass	2-Sep-15
-	-	-	20150902	1030632	Test Cente	18816	Pass	Pass	9-Feb-15
-	-	-	20150902	1030633	Test Cente	18796	Pass	Pass	2-Sep-15
-	-	-	20150515	1028805	Test Cente	16351	Pass	Pass	15-May-15
-	-	-	20150515	1028805	Test Cente	16351	Pass	Pass	15-May-15
-	-	-	20150515	1028806	Test Cente	16340	Pass	Pass	15-May-15
-	-	-	20150728	1029713	Test Cente	11744	Pass	Not Applic	28-Jul-15
-	-	-	20150728	1029713	Test Cente	11744	Pass	Not Applic	28-Jul-15
-	-	-	20150728	1029714	Test Cente	11776	Pass	Not Applic	28-Jul-15
-	-	-	20150728	1029715	Test Cente	11755	Pass	Not Applic	28-Jul-15
-	-	-	20150520	1028985	Test Cente	26387	Pass	Pass	20-May-15
-	-	-	20150520	1028986	Test Cente	26419	Pass	Pass	20-May-15
-	-	-	20150611	1029707	Test Cente	18774	Pass	Pass	11-Jun-15
-	-	-	20150611	1029707	Test Cente	18774	Pass	Pass	11-Jun-15
-	-	-	20150611	1029708	Test Cente	18806	Pass	Pass	11-Jun-15
-	-	-	20150612	1029823	Test Cente	10816	Pass	Pass	12-Jun-15
-	-	-	20150605	1029824	Test Cente	10793	Pass	Pass	5-Jun-15
-	-	-	20150605	1029825	Test Cente	10773	Pass	Pass	5-Jun-15
-	-	-	20150602	1029054	Test Cente	21331	Pass	Pass	2-Jun-15
-	-	-	20150729	1029918	Test Cente	15812	Pass	Pass	29-Jul-15
-	-	-	20150729	1029919	Test Cente	15791	Pass	Pass	29-Jul-15
-	-	-	20150417	1028483	Test Cente	17639	Pass	Pass	17-Apr-15
-	-	-	20150417	1028484	Test Cente	17670	Pass	Pass	17-Apr-15
-	-	-	20150422	1028485	Test Cente	17707	Pass	Pass	22-Apr-15
-	-	-	20150422	1028485	Test Cente	17707	Pass	Pass	22-Apr-15
-	-	-	20150415	1028451	Test Cente	22090	Pass	Pass	15-Apr-15
-	-	-	20150416	1028452	Test Cente	22134	Pass	Pass	16-Apr-15
-	-	-	20150416	1028452	Test Cente	22134	Pass	Pass	16-Apr-15

-	-	-	20150508	1028831	Test Cente	11860	Fail	Pass	8-May-15
-	-	-	20150508	1028831	Test Cente	11860	Fail	Pass	8-May-15
-	-	-	20150508	1028832	Test Cente	11892	Pass	Pass	8-May-15
-	-	-	20150508	1028833	Test Cente	11871	Pass	Pass	8-May-15
-	-	-	20150508	1028833	Test Cente	11871	Pass	Pass	8-May-15
-	-	-	20150729	1029771	Test Cente	12741	Pass	Pass	29-Jul-15
-	-	-	20150729	1029771	Test Cente	12741	Pass	Pass	29-Jul-15
-	-	-	20150729	1029773	Test Cente	12752	Pass	Pass	29-Jul-15
-	-	-	20151010	1030547	Test Cente	25583	Pass	Pass	10-Oct-15
-	-	-	20151010	1030547	Test Cente	25583	Pass	Pass	10-Oct-15
-	-	-	20151010	1030549	Test Cente	22671	Pass	Pass	10-Oct-15
-	-	-	20151010	1030550	Test Cente	22650	Pass	Pass	10-Oct-15
-	-	-	20151010	1030550	Test Cente	22650	Pass	Pass	10-Oct-15
-	-	-	20150422	1029041	Test Cente	13377	Pass	Pass	22-Apr-15
-	-	-	20150422	1029041	Test Cente	13377	Pass	Pass	22-Apr-15
-	-	-	20150422	1029042	Test Cente	13356	Pass	Pass	22-Apr-15
-	-	-	20150422	1029042	Test Cente	13356	Pass	Pass	22-Apr-15
-	-	-	20150729	1029811	Test Cente	23376	Pass	Pass	29-Jul-15
-	-	-	20150729	1029811	Test Cente	23376	Pass	Pass	29-Jul-15
-	-	-	20150729	1029811	Test Cente	23376	Pass	Pass	29-Jul-15
-	-	-	20150729	1029812	Test Cente	23407	Pass	Pass	29-Jul-15
-	-	-	20150729	1029813	Test Cente	23387	Pass	Pass	29-Jul-15
-	-	-	20150731	1029808	Test Cente	43610	Pass	Pass	31-Jul-15
-	-	-	20150805	1029817	Test Cente	21273	Pass	Pass	8-May-15
-	-	-	20150805	1029817	Test Cente	21273	Pass	Pass	8-May-15
-	-	-	20150805	1029818	Test Cente	21306	Pass	Pass	8-May-15
-	-	-	20150805	1029819	Test Cente	21284	Pass	Pass	5-Aug-15
-	-	-	20150805	1029819	Test Cente	21284	Pass	Pass	5-Aug-15
-	-	-	20150805	1029819	Test Cente	21284	Pass	Pass	5-Aug-15
-	-	-	20150805	1029819	Test Cente	21284	Pass	Pass	5-Aug-15
-	-	-	20150819	1029878	Test Cente	12861	Pass	Pass	19-Aug-15
-	-	-	20150819	1029878	Test Cente	12861	Pass	Pass	19-Aug-15
-	-	-	20150819	1029879	Test Cente	12840	Pass	Pass	19-Aug-15
-	-	-	20150819	1029879	Test Cente	12840	Pass	Pass	19-Aug-15
-	-	-	20150818	1029881	Test Cente	12840	Pass	Pass	18-Aug-15
-	-	-	20150804	1029909	Test Cente	14211	Pass	Pass	4-Aug-15
-	-	-	20150804	1029909	Test Cente	14211	Pass	Pass	4-Aug-15
-	-	-	20150805	1029911	Test Cente	14240	Pass	Pass	5-Aug-15
-	-	-	20150805	1029911	Test Cente	14240	Pass	Pass	5-Aug-15
-	-	-	20150722	1029914	Test Cente	13189	Pass	Pass	22-Jul-15
-	-	-	20150513	1028801	Test Cente	17093	Pass	Pass	13-May-15
-	-	-	20150513	1028801	Test Cente	17093	Pass	Pass	13-May-15
-	-	-	20150520	1029059	Test Cente	17319	Pass	Pass	20-May-15
-	-	-	20150520	1029059	Test Cente	17319	Pass	Pass	20-May-15
-	-	-	20150520	1029059	Test Cente	17319	Pass	Pass	20-May-15

-	-	-	20150515	1028824	Test Cente	20421	Pass	Pass	15-May-15
-	-	-	20150515	1028825	Test Cente	20432	Pass	Pass	15-May-15
-	-	-	20150618	1029665	Test Cente	20697	Pass	Pass	18-Jun-15
-	-	-	20150619	1029667	Test Cente	20726	Pass	Pass	19-Jun-15
-	-	-	20150619	1029667	Test Cente	20726	Pass	Pass	19-Jun-15
-	-	-	20150619	1029667	Test Cente	20726	Pass	Pass	19-Jun-15
-	-	-	20150513	1029279	Test Cente	15055	Pass	Pass	15-May-14
-	-	-	20150512	1029282	Test Cente	15034	Pass	Pass	12-May-15
-	-	-	20150520	1029064	Test Cente	14346	Pass	Pass	20-May-15
-	-	-	20150520	1029064	Test Cente	14346	Pass	Pass	20-May-15
-	-	-	20150526	1029066	Test Cente	14375	Pass	Pass	26-May-15
-	-	-	20150514	1028814	Test Cente	12731	Pass	Pass	14-May-15
-	-	-	20150514	1028815	Test Cente	12757	Pass	Pass	14-May-15
-	-	-	20150519	1028816	Test Cente	12791	Pass	Pass	19-May-15
-	-	-	20150519	1028817	Test Cente	12780	Pass	Pass	19-May-15
-	-	-	20150513	1028982	Test Cente	14855	Pass	Pass	13-May-15
-	-	-	20150513	1028982	Test Cente	14855	Pass	Pass	13-May-15
-	-	-	20150513	1028982	Test Cente	14855	Pass	Pass	13-May-15
-	-	-	20150904	1030483	Test Cente	14702	Pass	Pass	4-Sep-15
-	-	-	20150904	1030483	Test Cente	14702	Pass	Pass	4-Sep-15
-	-	-	20150904	1030483	Test Cente	14702	Pass	Pass	4-Sep-15
-	-	-	20150904	1030484	Test Cente	14734	Pass	Pass	4-Sep-15
-	-	-	20150904	1030484	Test Cente	14734	Pass	Pass	4-Sep-15
-	-	-	20150904	1030484	Test Cente	14734	Pass	Pass	4-Sep-15
-	-	-	20150902	1030486	Test Cente	10403	Pass	Pass	2-Sep-15
-	-	-	20150902	1030486	Test Cente	10403	Pass	Pass	2-Sep-15
-	-	-	20150902	1030486	Test Cente	10403	Pass	Pass	2-Sep-15
-	-	-	20150902	1030486	Test Cente	10403	Pass	Pass	2-Sep-15
-	-	-	20150902	1030486	Test Cente	10403	Pass	Pass	2-Sep-15
-	-	-	20150902	1030487	Test Cente	10435	Pass	Pass	2-Sep-15
-	-	-	20150902	1030488	Test Cente	10415	Pass	Pass	2-Sep-15
-	-	-	20150901	1030631	Test Cente	18768	Pass	Pass	9-Jan-15
-	-	-	20150901	1030631	Test Cente	18768	Pass	Pass	9-Jan-15
-	-	-	20150901	1030631	Test Cente	18768	Pass	Pass	9-Jan-15
-	-	-	20150902	1030633	Test Cente	18796	Pass	Pass	2-Sep-15
-	-	-	20150515	1028806	Test Cente	16340	Pass	Pass	15-May-15
-	-	-	20150515	1028806	Test Cente	16340	Pass	Pass	15-May-15
-	-	-	20150728	1029715	Test Cente	11755	Pass	Not Applic	28-Jul-15
-	-	-	20150520	1028986	Test Cente	26419	Pass	Pass	20-May-15
-	-	-	20150520	1028987	Test Cente	26398	Pass	Pass	20-May-15
-	-	-	20150611	1029707	Test Cente	18774	Pass	Pass	11-Jun-15
-	-	-	20150611	1029709	Test Cente	18785	Pass	Pass	11-Jun-15
-	-	-	20150612	1029823	Test Cente	10816	Pass	Pass	12-Jun-15
-	-	-	20150605	1029824	Test Cente	10793	Pass	Pass	5-Jun-15
-	-	-	20150605	1029824	Test Cente	10793	Pass	Pass	5-Jun-15

-	-	-	20150605	1029825	Test Cente	10773	Pass	Pass	5-Jun-15
-	-	-	20150519	1029049	Test Cente	21258	Pass	Fail	19-May-15
-	-	-	20150526	1029051	Test Cente	21287	Pass	Pass	26-May-15
-	-	-	20150519	1029053	Test Cente	21287	Pass	Pass	19-May-15
-	-	-	20150602	1029054	Test Cente	21331	Pass	Pass	2-Jun-15
-	-	-	20150602	1029054	Test Cente	21331	Pass	Pass	2-Jun-15
-	-	-	20150729	1029917	Test Cente	15780	Pass	Pass	29-Jul-15
-	-	-	20150729	1029918	Test Cente	15812	Pass	Pass	29-Jul-15
-	-	-	20150729	1029919	Test Cente	15791	Pass	Pass	29-Jul-15
-	-	-	20150415	1028449	Test Cente	22079	Pass	Pass	15-Apr-15
-	-	-	20150415	1028449	Test Cente	22079	Pass	Pass	15-Apr-15
-	-	-	20150416	1028452	Test Cente	22134	Pass	Pass	16-Apr-15
-	-	-	20150416	1028452	Test Cente	22134	Pass	Pass	16-Apr-15
-	-	-	20150416	1028452	Test Cente	22134	Pass	Pass	16-Apr-15
-	-	-	20150416	1028452	Test Cente	22134	Pass	Pass	16-Apr-15
-	-	-	20150508	1028831	Test Cente	11860	Fail	Pass	8-May-15
-	-	-	20150508	1028831	Test Cente	11860	Fail	Pass	8-May-15
-	-	-	20150508	1028832	Test Cente	11892	Pass	Pass	8-May-15
-	-	-	20150508	1028833	Test Cente	11871	Pass	Pass	8-May-15
-	-	-	20150508	1028833	Test Cente	11871	Pass	Pass	8-May-15
-	-	-	20150729	1029771	Test Cente	12741	Pass	Pass	29-Jul-15
-	-	-	20150729	1029772	Test Cente	12772	Pass	Pass	29-Jul-15
-	-	-	20150729	1029773	Test Cente	12752	Pass	Pass	29-Jul-15
-	-	-	20151010	1030545	Test Cente	25572	Pass	Pass	10-Oct-15
-	-	-	20151010	1030546	Test Cente	25604	Pass	Pass	10-Oct-15
-	-	-	20151010	1030546	Test Cente	25604	Pass	Pass	10-Oct-15
-	-	-	20151010	1030548	Test Cente	22639	Pass	Pass	10-Oct-15
-	-	-	20151010	1030548	Test Cente	22639	Pass	Pass	10-Oct-15
-	-	-	20151010	1030548	Test Cente	22639	Pass	Pass	10-Oct-15
-	-	-	20151010	1030549	Test Cente	22671	Pass	Pass	10-Oct-15
-	-	-	20151010	1030550	Test Cente	22650	Pass	Pass	10-Oct-15
-	-	-	20150421	1029040	Test Cente	13328	Pass	Pass	21-Apr-15
-	-	-	20150421	1029040	Test Cente	13328	Pass	Pass	21-Apr-15
-	-	-	20150421	1029040	Test Cente	13328	Pass	Pass	21-Apr-15
-	-	-	20150422	1029042	Test Cente	13356	Pass	Pass	22-Apr-15
-	-	-	20150422	1029042	Test Cente	13356	Pass	Pass	22-Apr-15
-	-	-	20150729	1029811	Test Cente	23376	Pass	Pass	29-Jul-15
-	-	-	20150729	1029813	Test Cente	23387	Pass	Pass	29-Jul-15
-	-	-	20150729	1029813	Test Cente	23387	Pass	Pass	29-Jul-15
-	-	-	20150731	1029809	Test Cente	43590	Pass	Pass	31-Jul-15
-	-	-	20150731	1029809	Test Cente	43590	Pass	Pass	31-Jul-15
-	-	-	20150805	1029817	Test Cente	21273	Pass	Pass	8-May-15
-	-	-	20150805	1029817	Test Cente	21273	Pass	Pass	8-May-15
-	-	-	20150814	1029877	Test Cente	12793	Pass	Pass	14-Aug-15
-	-	-	20150814	1029880	Test Cente	12804	Pass	Pass	14-Aug-15

-	-	-	20150804	1029909	Test Cente	14211	Pass	Pass	4-Aug-15
-	-	-	20150805	1029910	Test Cente	14261	Pass	Pass	5-Aug-15
-	-	-	20150722	1029914	Test Cente	13189	Pass	Pass	22-Jul-15
-	-	-	20150722	1029915	Test Cente	13221	Pass	Pass	22-Jul-15
-	-	-	20150722	1029916	Test Cente	13200	Pass	Pass	22-Jul-15
-	-	-	20150513	1028801	Test Cente	17093	Pass	Pass	13-May-15
-	-	-	20150513	1028802	Test Cente	17073	Pass	Pass	13-May-15
-	-	-	20150904	1030485	Test Cente	14713	Pass	Pass	4-Sep-15
-	-	-	20150904	1030485	Test Cente	14713	Pass	Pass	4-Sep-15
-	-	-	20150520	1029059	Test Cente	17319	Pass	Pass	20-May-15
-	-	-	20150520	1029059	Test Cente	17319	Pass	Pass	20-May-15
-	-	-	20150514	1029060	Test Cente	17277	Pass	Pass	14-May-15
-	-	-	20150514	1029061	Test Cente	17256	Pass	Pass	14-May-15
-	-	-	20150515	1028825	Test Cente	20432	Pass	Pass	15-May-15
-	-	-	20150515	1028826	Test Cente	20449	Pass	Pass	15-May-15
-	-	-	20150618	1029665	Test Cente	20697	Pass	Pass	18-Jun-15
-	-	-	20150618	1029665	Test Cente	20697	Pass	Pass	18-Jun-15
-	-	-	20150619	1029667	Test Cente	20726	Pass	Pass	19-Jun-15
-	-	-	6242015	1029668	Test Cente	20782	Pass	Pass	24-Jun-15
-	-	-	20150513	1029280	Test Cente	15034	Pass	Pass	13-May-15
-	-	-	20150520	1029064	Test Cente	14346	Pass	Pass	20-May-15
-	-	-	20150520	1029064	Test Cente	14346	Pass	Pass	20-May-15
-	-	-	20150731	1029810	Test Cente	43579	Pass	Pass	31-Jul-15
-	-	-	20150731	1029810	Test Cente	43579	Pass	Pass	31-Jul-15
-	-	-	20150731	1029810	Test Cente	43579	Pass	Pass	31-Jul-15
-	-	-	20150514	1028814	Test Cente	12731	Pass	Pass	14-May-15
-	-	-	20150514	1028815	Test Cente	12757	Pass	Pass	14-May-15
-	-	-	20150513	1028982	Test Cente	14855	Pass	Pass	13-May-15
-	-	-	20150513	1028982	Test Cente	14855	Pass	Pass	13-May-15
-	-	-	20150513	1028984	Test Cente	14866	Pass	Pass	13-May-15
-	-	-	20150513	1028984	Test Cente	14866	Pass	Pass	13-May-15
-	-	-	20150904	1030483	Test Cente	14702	Pass	Pass	4-Sep-15
-	-	-	20150902	1030486	Test Cente	10403	Pass	Pass	2-Sep-15
-	-	-	20150902	1030487	Test Cente	10435	Pass	Pass	2-Sep-15
-	-	-	20150902	1030488	Test Cente	10415	Pass	Pass	2-Sep-15
-	-	-	20150901	1030631	Test Cente	18768	Pass	Pass	9-Jan-15
-	-	-	20150902	1030632	Test Cente	18816	Pass	Pass	9-Feb-15
-	-	-	20150902	1030633	Test Cente	18796	Pass	Pass	2-Sep-15
-	-	-	20150902	1030633	Test Cente	18796	Pass	Pass	2-Sep-15
-	-	-	20150515	1028806	Test Cente	16340	Pass	Pass	15-May-15
-	-	-	20150515	1028806	Test Cente	16340	Pass	Pass	15-May-15
-	-	-	20150728	1029713	Test Cente	11744	Pass	Not Applic	28-Jul-15
-	-	-	20150728	1029713	Test Cente	11744	Pass	Not Applic	28-Jul-15
-	-	-	20150728	1029714	Test Cente	11776	Pass	Not Applic	28-Jul-15
-	-	-	20150520	1028985	Test Cente	26387	Pass	Pass	20-May-15

-	-	-	20150520	1028985	Test Cente	26387	Pass	Pass	20-May-15
-	-	-	20150520	1028986	Test Cente	26419	Pass	Pass	20-May-15
-	-	-	20150520	1028986	Test Cente	26419	Pass	Pass	20-May-15
-	-	-	20150520	1028987	Test Cente	26398	Pass	Pass	20-May-15
-	-	-	20150520	1028987	Test Cente	26398	Pass	Pass	20-May-15
-	-	-	20150611	1029707	Test Cente	18774	Pass	Pass	11-Jun-15
-	-	-	20150611	1029707	Test Cente	18774	Pass	Pass	11-Jun-15
-	-	-	20150612	1029823	Test Cente	10816	Pass	Pass	12-Jun-15
-	-	-	20150519	1029049	Test Cente	21258	Pass	Fail	19-May-15
-	-	-	20150526	1029050	Test Cente	21307	Pass	Pass	26-May-15
-	-	-	20150526	1029050	Test Cente	21307	Pass	Pass	26-May-15
-	-	-	20150526	1029051	Test Cente	21287	Pass	Pass	26-May-15
-	-	-	20150526	1029051	Test Cente	21287	Pass	Pass	26-May-15
-	-	-	20150729	1029917	Test Cente	15780	Pass	Pass	29-Jul-15
-	-	-	20150729	1029919	Test Cente	15791	Pass	Pass	29-Jul-15
-	-	-	20150417	1028483	Test Cente	17639	Pass	Pass	17-Apr-15
-	-	-	20150417	1028483	Test Cente	17639	Pass	Pass	17-Apr-15
-	-	-	20150417	1028483	Test Cente	17639	Pass	Pass	17-Apr-15
-	-	-	20150417	1028484	Test Cente	17670	Pass	Pass	17-Apr-15
-	-	-	20150415	1028450	Test Cente	22110	Pass	Pass	15-Apr-15
-	-	-	20150415	1028451	Test Cente	22090	Pass	Pass	15-Apr-15
-	-	-	20150416	1028452	Test Cente	22134	Pass	Pass	16-Apr-15
-	-	-	20150508	1028831	Test Cente	11860	Fail	Pass	8-May-15
-	-	-	20150508	1028832	Test Cente	11892	Pass	Pass	8-May-15
-	-	-	20150729	1029771	Test Cente	12741	Pass	Pass	29-Jul-15
-	-	-	20150729	1029773	Test Cente	12752	Pass	Pass	29-Jul-15
-	-	-	20151010	1030545	Test Cente	25572	Pass	Pass	10-Oct-15
-	-	-	20151010	1030545	Test Cente	25572	Pass	Pass	10-Oct-15
-	-	-	20151010	1030545	Test Cente	25572	Pass	Pass	10-Oct-15
-	-	-	20151010	1030545	Test Cente	25572	Pass	Pass	10-Oct-15
-	-	-	20151010	1030545	Test Cente	25572	Pass	Pass	10-Oct-15
-	-	-	20151010	1030546	Test Cente	25604	Pass	Pass	10-Oct-15
-	-	-	20151010	1030546	Test Cente	25604	Pass	Pass	10-Oct-15
-	-	-	20151010	1030548	Test Cente	22639	Pass	Pass	10-Oct-15
-	-	-	20151010	1030549	Test Cente	22671	Pass	Pass	10-Oct-15
-	-	-	20150421	1029040	Test Cente	13328	Pass	Pass	21-Apr-15
-	-	-	20150421	1029040	Test Cente	13328	Pass	Pass	21-Apr-15
-	-	-	20150421	1029040	Test Cente	13328	Pass	Pass	21-Apr-15
-	-	-	20150501	1029043	Test Cente	13419	Pass	Pass	1-May-15
-	-	-	20150729	1029811	Test Cente	23376	Pass	Pass	29-Jul-15
-	-	-	20150729	1029811	Test Cente	23376	Pass	Pass	29-Jul-15
-	-	-	20150729	1029813	Test Cente	23387	Pass	Pass	29-Jul-15
-	-	-	20150731	1029809	Test Cente	43590	Pass	Pass	31-Jul-15
-	-	-	20150805	1029818	Test Cente	21306	Pass	Pass	8-May-15
-	-	-	20150805	1029819	Test Cente	21284	Pass	Pass	5-Aug-15

-	-	-	20150819	1029878	Test Cente	12861	Pass	Pass	19-Aug-15
-	-	-	20150819	1029879	Test Cente	12840	Pass	Pass	19-Aug-15
-	-	-	20150804	1029909	Test Cente	14211	Pass	Pass	4-Aug-15
-	-	-	20150805	1029911	Test Cente	14240	Pass	Pass	5-Aug-15
-	-	-	20150722	1029914	Test Cente	13189	Pass	Pass	22-Jul-15
-	-	-	20150722	1029915	Test Cente	13221	Pass	Pass	22-Jul-15
-	-	-	20150722	1029915	Test Cente	13221	Pass	Pass	22-Jul-15
-	-	-	20150513	1028800	Test Cente	17061	Pass	Pass	13-May-15
-	-	-	20150513	1028802	Test Cente	17073	Pass	Pass	13-May-15
-	-	-	20150513	1028802	Test Cente	17073	Pass	Pass	13-May-15
-	-	-	20150904	1030485	Test Cente	14713	Pass	Pass	4-Sep-15
-	-	-	20150520	1029059	Test Cente	17319	Pass	Pass	20-May-15
-	-	-	20150514	1029060	Test Cente	17277	Pass	Pass	14-May-15
-	-	-	20150515	1028824	Test Cente	20421	Pass	Pass	15-May-15
-	-	-	20150618	1029665	Test Cente	20697	Pass	Pass	18-Jun-15
-	-	-	20150618	1029665	Test Cente	20697	Pass	Pass	18-Jun-15
-	-	-	20150619	1029667	Test Cente	20726	Pass	Pass	19-Jun-15
-	-	-	20150429	1029278	Test Cente	14932	Pass	Pass	29-Apr-15
-	-	-	20150429	1029278	Test Cente	14932	Pass	Pass	29-Apr-15
-	-	-	20150429	1029278	Test Cente	14932	Pass	Pass	29-Apr-15
-	-	-	20150429	1029278	Test Cente	14932	Pass	Pass	29-Apr-15
-	-	-	20150513	1029279	Test Cente	15055	Pass	Pass	15-May-14
-	-	-	20150513	1029280	Test Cente	15034	Pass	Pass	13-May-15
-	-	-	20150520	1029064	Test Cente	14346	Pass	Pass	20-May-15
-	-	-	20150520	1029064	Test Cente	14346	Pass	Pass	20-May-15
-	-	-	20150520	1029068	Test Cente	14375	Pass	Pass	20-May-15
-	-	-	20150731	1029810	Test Cente	43579	Pass	Pass	31-Jul-15
-	-	-	20150514	1028814	Test Cente	12731	Pass	Pass	14-May-15
-	-	-	20150514	1028815	Test Cente	12757	Pass	Pass	14-May-15
-	-	-	20150519	1028816	Test Cente	12791	Pass	Pass	19-May-15
-	-	-	20150519	1028817	Test Cente	12780	Pass	Pass	19-May-15
-	-	-	20150513	1028982	Test Cente	14855	Pass	Pass	13-May-15
-	-	-	20150513	1028982	Test Cente	14855	Pass	Pass	13-May-15
-	-	-	20150513	1028984	Test Cente	14866	Pass	Pass	13-May-15
-	-	-	20150513	1028984	Test Cente	14866	Pass	Pass	13-May-15
-	-	-	20150902	1030486	Test Cente	10403	Pass	Pass	2-Sep-15
-	-	-	20150902	1030487	Test Cente	10435	Pass	Pass	2-Sep-15
-	-	-	20150902	1030632	Test Cente	18816	Pass	Pass	9-Feb-15
-	-	-	20150902	1030632	Test Cente	18816	Pass	Pass	9-Feb-15
-	-	-	20150902	1030633	Test Cente	18796	Pass	Pass	2-Sep-15
-	-	-	20150904	1030634	Test Cente	18839	Pass	Pass	4-Sep-15
-	-	-	20150518	1028804	Test Cente	16380	Pass	Pass	18-May-15
-	-	-	20150515	1028805	Test Cente	16351	Pass	Pass	15-May-15
-	-	-	20150515	1028805	Test Cente	16351	Pass	Pass	15-May-15
-	-	-	20150515	1028806	Test Cente	16340	Pass	Pass	15-May-15

-	-	-	20150515	1028806	Test Cente	16340	Pass	Pass	15-May-15
-	-	-	20150515	1028806	Test Cente	16340	Pass	Pass	15-May-15
-	-	-	20150728	1029713	Test Cente	11744	Pass	Not Applic	28-Jul-15
-	-	-	20150728	1029713	Test Cente	11744	Pass	Not Applic	28-Jul-15
-	-	-	20150728	1029713	Test Cente	11744	Pass	Not Applic	28-Jul-15
-	-	-	20150728	1029714	Test Cente	11776	Pass	Not Applic	28-Jul-15
-	-	-	20150520	1028985	Test Cente	26387	Pass	Pass	20-May-15
-	-	-	20150520	1028985	Test Cente	26387	Pass	Pass	20-May-15
-	-	-	20150611	1029708	Test Cente	18806	Pass	Pass	11-Jun-15
-	-	-	20150611	1029709	Test Cente	18785	Pass	Pass	11-Jun-15
-	-	-	20150612	1029823	Test Cente	10816	Pass	Pass	12-Jun-15
-	-	-	20150612	1029823	Test Cente	10816	Pass	Pass	12-Jun-15
-	-	-	20150612	1029823	Test Cente	10816	Pass	Pass	12-Jun-15
-	-	-	20150605	1029824	Test Cente	10793	Pass	Pass	5-Jun-15
-	-	-	20150605	1029825	Test Cente	10773	Pass	Pass	5-Jun-15
-	-	-	20150605	1029825	Test Cente	10773	Pass	Pass	5-Jun-15
-	-	-	20150519	1029049	Test Cente	21258	Pass	Fail	19-May-15
-	-	-	20150519	1029049	Test Cente	21258	Pass	Fail	19-May-15
-	-	-	20150526	1029050	Test Cente	21307	Pass	Pass	26-May-15
-	-	-	20150526	1029051	Test Cente	21287	Pass	Pass	26-May-15
-	-	-	20150526	1029051	Test Cente	21287	Pass	Pass	26-May-15
-	-	-	20150602	1029054	Test Cente	21331	Pass	Pass	2-Jun-15
-	-	-	20150729	1029917	Test Cente	15780	Pass	Pass	29-Jul-15
-	-	-	20150729	1029917	Test Cente	15780	Pass	Pass	29-Jul-15
-	-	-	20150729	1029918	Test Cente	15812	Pass	Pass	29-Jul-15
-	-	-	20150729	1029919	Test Cente	15791	Pass	Pass	29-Jul-15
-	-	-	20150417	1028483	Test Cente	17639	Pass	Pass	17-Apr-15
-	-	-	20150417	1028483	Test Cente	17639	Pass	Pass	17-Apr-15
-	-	-	20150415	1028449	Test Cente	22079	Pass	Pass	15-Apr-15
-	-	-	20150415	1028450	Test Cente	22110	Pass	Pass	15-Apr-15
-	-	-	20150415	1028451	Test Cente	22090	Pass	Pass	15-Apr-15
-	-	-	20150415	1028451	Test Cente	22090	Pass	Pass	15-Apr-15
-	-	-	20150508	1028833	Test Cente	11871	Pass	Pass	8-May-15
-	-	-	20150729	1029771	Test Cente	12741	Pass	Pass	29-Jul-15
-	-	-	20150729	1029773	Test Cente	12752	Pass	Pass	29-Jul-15
-	-	-	20151010	1030545	Test Cente	25572	Pass	Pass	10-Oct-15
-	-	-	20151010	1030547	Test Cente	25583	Pass	Pass	10-Oct-15
-	-	-	20151010	1030547	Test Cente	25583	Pass	Pass	10-Oct-15
-	-	-	20151010	1030548	Test Cente	22639	Pass	Pass	10-Oct-15
-	-	-	20151010	1030549	Test Cente	22671	Pass	Pass	10-Oct-15
-	-	-	20151010	1030550	Test Cente	22650	Pass	Pass	10-Oct-15
-	-	-	20150422	1029041	Test Cente	13377	Pass	Pass	22-Apr-15
-	-	-	20150422	1029044	Test Cente	13367	Pass	Pass	22-May-15
-	-	-	20150729	1029812	Test Cente	23407	Pass	Pass	29-Jul-15
-	-	-	20150729	1029812	Test Cente	23407	Pass	Pass	29-Jul-15

-	-	-	20150729	1029813	Test Cente	23387	Pass	Pass	29-Jul-15
-	-	-	20150731	1029808	Test Cente	43610	Pass	Pass	31-Jul-15
-	-	-	20150805	1029818	Test Cente	21306	Pass	Pass	8-May-15
-	-	-	20150814	1029877	Test Cente	12793	Pass	Pass	14-Aug-15
-	-	-	20150814	1029877	Test Cente	12793	Pass	Pass	14-Aug-15
-	-	-	20150814	1029877	Test Cente	12793	Pass	Pass	14-Aug-15
-	-	-	20150819	1029878	Test Cente	12861	Pass	Pass	19-Aug-15
-	-	-	20150819	1029878	Test Cente	12861	Pass	Pass	19-Aug-15
-	-	-	20150804	1029909	Test Cente	14211	Pass	Pass	4-Aug-15
-	-	-	20150805	1029910	Test Cente	14261	Pass	Pass	5-Aug-15
-	-	-	20150805	1029911	Test Cente	14240	Pass	Pass	5-Aug-15
-	-	-	20150807	1029912	Test Cente	14296	Pass	Pass	7-Aug-15
-	-	-	20150804	1029913	Test Cente	14240	Pass	Pass	4-Aug-15
-	-	-	20150722	1029915	Test Cente	13221	Pass	Pass	22-Jul-15
-	-	-	20150722	1029915	Test Cente	13221	Pass	Pass	22-Jul-15
-	-	-	20150722	1029916	Test Cente	13200	Pass	Pass	22-Jul-15
-	-	-	20150513	1028800	Test Cente	17061	Pass	Pass	13-May-15
-	-	-	20150513	1028800	Test Cente	17061	Pass	Pass	13-May-15
-	-	-	20150513	1028800	Test Cente	17061	Pass	Pass	13-May-15
-	-	-	20150513	1028800	Test Cente	17061	Pass	Pass	13-May-15
-	-	-	20150513	1028802	Test Cente	17073	Pass	Pass	13-May-15
-	-	-	20150520	1029059	Test Cente	17319	Pass	Pass	20-May-15
-	-	-	20150514	1029060	Test Cente	17277	Pass	Pass	14-May-15
-	-	-	20150514	1029060	Test Cente	17277	Pass	Pass	14-May-15
-	-	-	20150514	1029061	Test Cente	17256	Pass	Pass	14-May-15
-	-	-	20150515	1028824	Test Cente	20421	Pass	Pass	15-May-15
-	-	-	20150515	1028824	Test Cente	20421	Pass	Pass	15-May-15
-	-	-	20150515	1028826	Test Cente	20449	Pass	Pass	15-May-15
-	-	-	20150515	1028826	Test Cente	20449	Pass	Pass	15-May-15
-	-	-	20150515	1028826	Test Cente	20449	Pass	Pass	15-May-15
-	-	-	20150618	1029665	Test Cente	20697	Pass	Pass	18-Jun-15
-	-	-	20150618	1029665	Test Cente	20697	Pass	Pass	18-Jun-15
-	-	-	20150619	1029667	Test Cente	20726	Pass	Pass	19-Jun-15
-	-	-	20150619	1029667	Test Cente	20726	Pass	Pass	19-Jun-15
-	-	-	20150429	1029278	Test Cente	14932	Pass	Pass	29-Apr-15
-	-	-	20150513	1029279	Test Cente	15055	Pass	Pass	15-May-14
-	-	-	20150513	1029280	Test Cente	15034	Pass	Pass	13-May-15
-	-	-	20150520	1029064	Test Cente	14346	Pass	Pass	20-May-15
-	-	-	20150526	1029066	Test Cente	14375	Pass	Pass	26-May-15
-	-	-	20150731	1029810	Test Cente	43579	Pass	Pass	31-Jul-15
-	-	-	20150731	1029810	Test Cente	43579	Pass	Pass	31-Jul-15
-	-	-	20150514	1028814	Test Cente	12731	Pass	Pass	14-May-15
-	-	-	20150514	1028814	Test Cente	12731	Pass	Pass	14-May-15
-	-	-	20150514	1028814	Test Cente	12731	Pass	Pass	14-May-15
-	-	-	20150514	1028814	Test Cente	12731	Pass	Pass	14-May-15

-	-	-	20150514	1028815	Test Cente	12757	Pass	Pass	14-May-15
-	-	-	20150519	1028816	Test Cente	12791	Pass	Pass	19-May-15
-	-	-	20150519	1028817	Test Cente	12780	Pass	Pass	19-May-15
-	-	-	20150519	1028817	Test Cente	12780	Pass	Pass	19-May-15
-	-	-	20150519	1028817	Test Cente	12780	Pass	Pass	19-May-15
-	-	-	20150513	1028982	Test Cente	14855	Pass	Pass	13-May-15
-	-	-	20150514	1028983	Test Cente	14894	Pass	Pass	14-May-15
-	-	-	20150513	1028984	Test Cente	14866	Pass	Pass	13-May-15
-	-	-	20150904	1030483	Test Cente	14702	Pass	Pass	4-Sep-15
-	-	-	20150904	1030483	Test Cente	14702	Pass	Pass	4-Sep-15
-	-	-	20150904	1030483	Test Cente	14702	Pass	Pass	4-Sep-15
-	-	-	20150902	1030486	Test Cente	10403	Pass	Pass	2-Sep-15
-	-	-	20150901	1030631	Test Cente	18768	Pass	Pass	9-Jan-15
-	-	-	20150901	1030631	Test Cente	18768	Pass	Pass	9-Jan-15
-	-	-	20150902	1030633	Test Cente	18796	Pass	Pass	2-Sep-15
-	-	-	20150518	1028804	Test Cente	16380	Pass	Pass	18-May-15
-	-	-	20150515	1028805	Test Cente	16351	Pass	Pass	15-May-15
-	-	-	20150515	1028805	Test Cente	16351	Pass	Pass	15-May-15
-	-	-	20150728	1029713	Test Cente	11744	Pass	Not Applic	28-Jul-15
-	-	-	20150728	1029714	Test Cente	11776	Pass	Not Applic	28-Jul-15
-	-	-	20150520	1028985	Test Cente	26387	Pass	Pass	20-May-15
-	-	-	20150611	1029707	Test Cente	18774	Pass	Pass	11-Jun-15
-	-	-	20150611	1029708	Test Cente	18806	Pass	Pass	11-Jun-15
-	-	-	20150611	1029708	Test Cente	18806	Pass	Pass	11-Jun-15
-	-	-	20150611	1029709	Test Cente	18785	Pass	Pass	11-Jun-15
-	-	-	20150611	1029709	Test Cente	18785	Pass	Pass	11-Jun-15
-	-	-	20150611	1029709	Test Cente	18785	Pass	Pass	11-Jun-15
-	-	-	20150611	1029709	Test Cente	18785	Pass	Pass	11-Jun-15
-	-	-	20150612	1029823	Test Cente	10816	Pass	Pass	12-Jun-15
-	-	-	20150612	1029823	Test Cente	10816	Pass	Pass	12-Jun-15
-	-	-	20150605	1029825	Test Cente	10773	Pass	Pass	5-Jun-15
-	-	-	20150605	1029825	Test Cente	10773	Pass	Pass	5-Jun-15
-	-	-	20150519	1029049	Test Cente	21258	Pass	Fail	19-May-15
-	-	-	20150602	1029052	Test Cente	21343	Pass	Pass	2-Jun-15
-	-	-	20150729	1029917	Test Cente	15780	Pass	Pass	29-Jul-15
-	-	-	20150729	1029917	Test Cente	15780	Pass	Pass	29-Jul-15
-	-	-	20150729	1029918	Test Cente	15812	Pass	Pass	29-Jul-15
-	-	-	20150417	1028483	Test Cente	17639	Pass	Pass	17-Apr-15
-	-	-	20150417	1028484	Test Cente	17670	Pass	Pass	17-Apr-15
-	-	-	20150417	1028484	Test Cente	17670	Pass	Pass	17-Apr-15
-	-	-	20150422	1028485	Test Cente	17707	Pass	Pass	22-Apr-15
-	-	-	20150422	1028485	Test Cente	17707	Pass	Pass	22-Apr-15
-	-	-	20150415	1028449	Test Cente	22079	Pass	Pass	15-Apr-15
-	-	-	20150416	1028452	Test Cente	22134	Pass	Pass	16-Apr-15
-	-	-	20150508	1028831	Test Cente	11860	Fail	Pass	8-May-15

-	-	-	20150508	1028832	Test Cente	11892	Pass	Pass	8-May-15
-	-	-	20150508	1028833	Test Cente	11871	Pass	Pass	8-May-15
-	-	-	20150729	1029771	Test Cente	12741	Pass	Pass	29-Jul-15
-	-	-	20150729	1029771	Test Cente	12741	Pass	Pass	29-Jul-15
-	-	-	20150729	1029772	Test Cente	12772	Pass	Pass	29-Jul-15
-	-	-	20150729	1029773	Test Cente	12752	Pass	Pass	29-Jul-15
-	-	-	20151010	1030547	Test Cente	25583	Pass	Pass	10-Oct-15
-	-	-	20151010	1030548	Test Cente	22639	Pass	Pass	10-Oct-15
-	-	-	20151010	1030548	Test Cente	22639	Pass	Pass	10-Oct-15
-	-	-	20151010	1030550	Test Cente	22650	Pass	Pass	10-Oct-15
-	-	-	20151010	1030550	Test Cente	22650	Pass	Pass	10-Oct-15
-	-	-	20150421	1029040	Test Cente	13328	Pass	Pass	21-Apr-15
-	-	-	20150421	1029040	Test Cente	13328	Pass	Pass	21-Apr-15
-	-	-	20150421	1029040	Test Cente	13328	Pass	Pass	21-Apr-15
-	-	-	20150422	1029042	Test Cente	13356	Pass	Pass	22-Apr-15
-	-	-	20150422	1029042	Test Cente	13356	Pass	Pass	22-Apr-15
-	-	-	20150729	1029811	Test Cente	23376	Pass	Pass	29-Jul-15
-	-	-	20150729	1029813	Test Cente	23387	Pass	Pass	29-Jul-15
-	-	-	20150731	1029809	Test Cente	43590	Pass	Pass	31-Jul-15
-	-	-	20150731	1029809	Test Cente	43590	Pass	Pass	31-Jul-15
-	-	-	20150805	1029817	Test Cente	21273	Pass	Pass	8-May-15
-	-	-	20150805	1029817	Test Cente	21273	Pass	Pass	8-May-15
-	-	-	20150805	1029818	Test Cente	21306	Pass	Pass	8-May-15
-	-	-	20150814	1029877	Test Cente	12793	Pass	Pass	14-Aug-15
-	-	-	20150819	1029878	Test Cente	12861	Pass	Pass	19-Aug-15
-	-	-	20150819	1029879	Test Cente	12840	Pass	Pass	19-Aug-15
-	-	-	20150819	1029879	Test Cente	12840	Pass	Pass	19-Aug-15
-	-	-	20150804	1029909	Test Cente	14211	Pass	Pass	4-Aug-15
-	-	-	20150804	1029909	Test Cente	14211	Pass	Pass	4-Aug-15
-	-	-	20150805	1029911	Test Cente	14240	Pass	Pass	5-Aug-15
-	-	-	20150722	1029914	Test Cente	13189	Pass	Pass	22-Jul-15
-	-	-	20150722	1029914	Test Cente	13189	Pass	Pass	22-Jul-15
-	-	-	20150722	1029914	Test Cente	13189	Pass	Pass	22-Jul-15
-	-	-	20150722	1029914	Test Cente	13189	Pass	Pass	22-Jul-15
-	-	-	20150722	1029914	Test Cente	13189	Pass	Pass	22-Jul-15
-	-	-	20150513	1028800	Test Cente	17061	Pass	Pass	13-May-15
-	-	-	20150513	1028801	Test Cente	17093	Pass	Pass	13-May-15
-	-	-	20150904	1030485	Test Cente	14713	Pass	Pass	4-Sep-15
-	-	-	20150520	1029059	Test Cente	17319	Pass	Pass	20-May-15
-	-	-	20150520	1029059	Test Cente	17319	Pass	Pass	20-May-15
-	-	-	20150515	1028824	Test Cente	20421	Pass	Pass	15-May-15
-	-	-	20150515	1028824	Test Cente	20421	Pass	Pass	15-May-15
-	-	-	20150515	1028825	Test Cente	20432	Pass	Pass	15-May-15
-	-	-	20150515	1028825	Test Cente	20432	Pass	Pass	15-May-15
-	-	-	20150618	1029665	Test Cente	20697	Pass	Pass	18-Jun-15

-	-	-	20150619	1029666	Test Cente	20747	Pass	Pass	19-Jun-15
-	-	-	20150429	1029278	Test Cente	14932	Pass	Pass	29-Apr-15
-	-	-	20150429	1029278	Test Cente	14932	Pass	Pass	29-Apr-15
-	-	-	20150429	1029278	Test Cente	14932	Pass	Pass	29-Apr-15
-	-	-	20150513	1029280	Test Cente	15034	Pass	Pass	13-May-15
-	-	-	20150429	1029281	Test Cente	14946	Pass	Pass	29-Apr-15
-	-	-	20150520	1029064	Test Cente	14346	Pass	Pass	20-May-15
-	-	-	20150526	1029065	Test Cente	14396	Pass	Pass	26-May-15
-	-	-	20150526	1029066	Test Cente	14375	Pass	Pass	26-May-15
-	-	-	20150526	1029066	Test Cente	14375	Pass	Pass	26-May-15
-	-	-	20150731	1029810	Test Cente	43579	Pass	Pass	31-Jul-15
-	-	-	20150519	1028816	Test Cente	12791	Pass	Pass	19-May-15
-	-	-	20150513	1028982	Test Cente	14855	Pass	Pass	13-May-15
-	-	-	20150514	1028983	Test Cente	14894	Pass	Pass	14-May-15
-	-	-	20150513	1028984	Test Cente	14866	Pass	Pass	13-May-15
-	-	-	20150904	1030483	Test Cente	14702	Pass	Pass	4-Sep-15
-	-	-	20150904	1030484	Test Cente	14734	Pass	Pass	4-Sep-15
-	-	-	20150902	1030486	Test Cente	10403	Pass	Pass	2-Sep-15
-	-	-	20150902	1030488	Test Cente	10415	Pass	Pass	2-Sep-15
-	-	-	20150902	1030488	Test Cente	10415	Pass	Pass	2-Sep-15
-	-	-	20150901	1030631	Test Cente	18768	Pass	Pass	9-Jan-15
-	-	-	20150901	1030631	Test Cente	18768	Pass	Pass	9-Jan-15
-	-	-	20150901	1030631	Test Cente	18768	Pass	Pass	9-Jan-15
-	-	-	20150518	1028804	Test Cente	16380	Pass	Pass	18-May-15
-	-	-	20150515	1028806	Test Cente	16340	Pass	Pass	15-May-15
-	-	-	20150728	1029714	Test Cente	11776	Pass	Not Applic	28-Jul-15
-	-	-	20150728	1029714	Test Cente	11776	Pass	Not Applic	28-Jul-15
-	-	-	20150520	1028985	Test Cente	26387	Pass	Pass	20-May-15
-	-	-	20150520	1028986	Test Cente	26419	Pass	Pass	20-May-15
-	-	-	20150520	1028986	Test Cente	26419	Pass	Pass	20-May-15
-	-	-	20150520	1028987	Test Cente	26398	Pass	Pass	20-May-15
-	-	-	20150520	1028987	Test Cente	26398	Pass	Pass	20-May-15
-	-	-	20150611	1029707	Test Cente	18774	Pass	Pass	11-Jun-15
-	-	-	20150612	1029823	Test Cente	10816	Pass	Pass	12-Jun-15
-	-	-	20150605	1029825	Test Cente	10773	Pass	Pass	5-Jun-15
-	-	-	20150519	1029049	Test Cente	21258	Pass	Fail	19-May-15
-	-	-	20150519	1029049	Test Cente	21258	Pass	Fail	19-May-15
-	-	-	20150526	1029050	Test Cente	21307	Pass	Pass	26-May-15
-	-	-	20150526	1029051	Test Cente	21287	Pass	Pass	26-May-15
-	-	-	20150526	1029051	Test Cente	21287	Pass	Pass	26-May-15
-	-	-	20150602	1029054	Test Cente	21331	Pass	Pass	2-Jun-15
-	-	-	20150602	1029054	Test Cente	21331	Pass	Pass	2-Jun-15
-	-	-	20150602	1029054	Test Cente	21331	Pass	Pass	2-Jun-15
-	-	-	20150729	1029917	Test Cente	15780	Pass	Pass	29-Jul-15
-	-	-	20150729	1029917	Test Cente	15780	Pass	Pass	29-Jul-15

-	-	-	20150729T	1029919	Test Cente	15791	Pass	Pass	29-Jul-15
-	-	-	20150417T	1028483	Test Cente	17639	Pass	Pass	17-Apr-15
-	-	-	20150417T	1028483	Test Cente	17639	Pass	Pass	17-Apr-15
-	-	-	20150422T	1028485	Test Cente	17707	Pass	Pass	22-Apr-15
-	-	-	20150422T	1028485	Test Cente	17707	Pass	Pass	22-Apr-15
-	-	-	20150508T	1028831	Test Cente	11860	Fail	Pass	8-May-15
-	-	-	20150508T	1028831	Test Cente	11860	Fail	Pass	8-May-15
-	-	-	20150508T	1028833	Test Cente	11871	Pass	Pass	8-May-15
-	-	-	20150729T	1029771	Test Cente	12741	Pass	Pass	29-Jul-15
-	-	-	20150729T	1029771	Test Cente	12741	Pass	Pass	29-Jul-15
-	-	-	20150729T	1029772	Test Cente	12772	Pass	Pass	29-Jul-15
-	-	-	20150729T	1029773	Test Cente	12752	Pass	Pass	29-Jul-15
-	-	-	20151010T	1030545	Test Cente	25572	Pass	Pass	10-Oct-15
-	-	-	20151010T	1030545	Test Cente	25572	Pass	Pass	10-Oct-15
-	-	-	20151010T	1030546	Test Cente	25604	Pass	Pass	10-Oct-15
-	-	-	20150422T	1029041	Test Cente	13377	Pass	Pass	22-Apr-15
-	-	-	20150422T	1029041	Test Cente	13377	Pass	Pass	22-Apr-15
-	-	-	20150422T	1029042	Test Cente	13356	Pass	Pass	22-Apr-15
-	-	-	20150729T	1029812	Test Cente	23407	Pass	Pass	29-Jul-15
-	-	-	20150729T	1029812	Test Cente	23407	Pass	Pass	29-Jul-15
-	-	-	20150729T	1029813	Test Cente	23387	Pass	Pass	29-Jul-15
-	-	-	20150731T	1029808	Test Cente	43610	Pass	Pass	31-Jul-15
-	-	-	20150805T	1029817	Test Cente	21273	Pass	Pass	8-May-15
-	-	-	20150805T	1029817	Test Cente	21273	Pass	Pass	8-May-15
-	-	-	20150814T	1029877	Test Cente	12793	Pass	Pass	14-Aug-15
-	-	-	20150814T	1029877	Test Cente	12793	Pass	Pass	14-Aug-15
-	-	-	20150814T	1029877	Test Cente	12793	Pass	Pass	14-Aug-15
-	-	-	20150819T	1029879	Test Cente	12840	Pass	Pass	19-Aug-15
-	-	-	20150804T	1029909	Test Cente	14211	Pass	Pass	4-Aug-15
-	-	-	20150804T	1029909	Test Cente	14211	Pass	Pass	4-Aug-15
-	-	-	20150805T	1029910	Test Cente	14261	Pass	Pass	5-Aug-15
-	-	-	20150805T	1029910	Test Cente	14261	Pass	Pass	5-Aug-15
-	-	-	20150722T	1029914	Test Cente	13189	Pass	Pass	22-Jul-15
-	-	-	20150722T	1029916	Test Cente	13200	Pass	Pass	22-Jul-15
-	-	-	20150513T	1028800	Test Cente	17061	Pass	Pass	13-May-15
-	-	-	20150513T	1028801	Test Cente	17093	Pass	Pass	13-May-15
-	-	-	20150513T	1028802	Test Cente	17073	Pass	Pass	13-May-15
-	-	-	20150520T	1029059	Test Cente	17319	Pass	Pass	20-May-15
-	-	-	20150514T	1029060	Test Cente	17277	Pass	Pass	14-May-15
-	-	-	20150514T	1029061	Test Cente	17256	Pass	Pass	14-May-15
-	-	-	20150514T	1029061	Test Cente	17256	Pass	Pass	14-May-15
-	-	-	20150515T	1028824	Test Cente	20421	Pass	Pass	15-May-15
-	-	-	20150515T	1028824	Test Cente	20421	Pass	Pass	15-May-15
-	-	-	20150515T	1028825	Test Cente	20432	Pass	Pass	15-May-15
-	-	-	20150619T	1029666	Test Cente	20747	Pass	Pass	19-Jun-15

-	-	-	20150619	1029666	Test Cente	20747	Pass	Pass	19-Jun-15
-	-	-	20150429	1029278	Test Cente	14932	Pass	Pass	29-Apr-15
-	-	-	20150429	1029278	Test Cente	14932	Pass	Pass	29-Apr-15
-	-	-	20150513	1029279	Test Cente	15055	Pass	Pass	15-May-14
-	-	-	20150513	1029280	Test Cente	15034	Pass	Pass	13-May-15
-	-	-	20150513	1029280	Test Cente	15034	Pass	Pass	13-May-15
-	-	-	20150520	1029064	Test Cente	14346	Pass	Pass	20-May-15
-	-	-	20150526	1029065	Test Cente	14396	Pass	Pass	26-May-15
-	-	-	20150526	1029066	Test Cente	14375	Pass	Pass	26-May-15
-	-	-	20150526	1029066	Test Cente	14375	Pass	Pass	26-May-15
-	-	-	20150526	1029066	Test Cente	14375	Pass	Pass	26-May-15
-	-	-	20150604	1029067	Test Cente	14431	Pass	Pass	4-Jun-15
-	-	-	20150731	1029810	Test Cente	43579	Pass	Pass	31-Jul-15
-	-	-	20150731	1029810	Test Cente	43579	Pass	Pass	31-Jul-15
-	-	-	20150514	1028814	Test Cente	12731	Pass	Pass	14-May-15
-	-	-	20150514	1028814	Test Cente	12731	Pass	Pass	14-May-15
-	-	-	20150519	1028817	Test Cente	12780	Pass	Pass	19-May-15
-	-	-	20150513	1028982	Test Cente	14855	Pass	Pass	13-May-15
-	-	-	20150514	1028983	Test Cente	14894	Pass	Pass	14-May-15
-	-	-	20150514	1028983	Test Cente	14894	Pass	Pass	14-May-15
-	-	-	20150513	1028984	Test Cente	14866	Pass	Pass	13-May-15
-	-	-	20150902	1030487	Test Cente	10435	Pass	Pass	2-Sep-15
-	-	-	20150902	1030487	Test Cente	10435	Pass	Pass	2-Sep-15
-	-	-	20150902	1030488	Test Cente	10415	Pass	Pass	2-Sep-15
-	-	-	20150902	1030488	Test Cente	10415	Pass	Pass	2-Sep-15
-	-	-	20150901	1030631	Test Cente	18768	Pass	Pass	9-Jan-15
-	-	-	20150901	1030635	Test Cente	18796	Pass	Pass	1-Sep-15
-	-	-	20150518	1028804	Test Cente	16380	Pass	Pass	18-May-15
-	-	-	20150515	1028806	Test Cente	16340	Pass	Pass	15-May-15
-	-	-	20150515	1028806	Test Cente	16340	Pass	Pass	15-May-15
-	-	-	20150728	1029715	Test Cente	11755	Pass	Not Applic	28-Jul-15
-	-	-	20150520	1028985	Test Cente	26387	Pass	Pass	20-May-15
-	-	-	20150520	1028987	Test Cente	26398	Pass	Pass	20-May-15
-	-	-	20150520	1028987	Test Cente	26398	Pass	Pass	20-May-15
-	-	-	20150611	1029707	Test Cente	18774	Pass	Pass	11-Jun-15
-	-	-	20150611	1029707	Test Cente	18774	Pass	Pass	11-Jun-15
-	-	-	20150611	1029707	Test Cente	18774	Pass	Pass	11-Jun-15
-	-	-	20150611	1029708	Test Cente	18806	Pass	Pass	11-Jun-15
-	-	-	20150611	1029708	Test Cente	18806	Pass	Pass	11-Jun-15
-	-	-	20150519	1029049	Test Cente	21258	Pass	Fail	19-May-15
-	-	-	20150519	1029049	Test Cente	21258	Pass	Fail	19-May-15
-	-	-	20150526	1029050	Test Cente	21307	Pass	Pass	26-May-15
-	-	-	20150526	1029050	Test Cente	21307	Pass	Pass	26-May-15
-	-	-	20150602	1029054	Test Cente	21331	Pass	Pass	2-Jun-15
-	-	-	20150602	1029054	Test Cente	21331	Pass	Pass	2-Jun-15

-	-	-	20150602	1029054	Test Cente	21331	Pass	Pass	2-Jun-15
-	-	-	20150729	1029917	Test Cente	15780	Pass	Pass	29-Jul-15
-	-	-	20150729	1029917	Test Cente	15780	Pass	Pass	29-Jul-15
-	-	-	20150729	1029919	Test Cente	15791	Pass	Pass	29-Jul-15
-	-	-	20150729	1029919	Test Cente	15791	Pass	Pass	29-Jul-15
-	-	-	20150422	1028485	Test Cente	17707	Pass	Pass	22-Apr-15
-	-	-	20150415	1028449	Test Cente	22079	Pass	Pass	15-Apr-15
-	-	-	20150415	1028449	Test Cente	22079	Pass	Pass	15-Apr-15
-	-	-	20150415	1028450	Test Cente	22110	Pass	Pass	15-Apr-15
-	-	-	20150415	1028450	Test Cente	22110	Pass	Pass	15-Apr-15
-	-	-	20150416	1028452	Test Cente	22134	Pass	Pass	16-Apr-15
-	-	-	20150508	1028831	Test Cente	11860	Fail	Pass	8-May-15
-	-	-	20150508	1028832	Test Cente	11892	Pass	Pass	8-May-15
-	-	-	20150729	1029771	Test Cente	12741	Pass	Pass	29-Jul-15
-	-	-	20150729	1029772	Test Cente	12772	Pass	Pass	29-Jul-15
-	-	-	20150729	1029773	Test Cente	12752	Pass	Pass	29-Jul-15
-	-	-	20151010	1030547	Test Cente	25583	Pass	Pass	10-Oct-15
-	-	-	20151010	1030548	Test Cente	22639	Pass	Pass	10-Oct-15
-	-	-	20151010	1030548	Test Cente	22639	Pass	Pass	10-Oct-15
-	-	-	20151010	1030549	Test Cente	22671	Pass	Pass	10-Oct-15
-	-	-	20151010	1030549	Test Cente	22671	Pass	Pass	10-Oct-15
-	-	-	20151010	1030550	Test Cente	22650	Pass	Pass	10-Oct-15
-	-	-	20150729	1029811	Test Cente	23376	Pass	Pass	29-Jul-15
-	-	-	20150729	1029811	Test Cente	23376	Pass	Pass	29-Jul-15
-	-	-	20150729	1029812	Test Cente	23407	Pass	Pass	29-Jul-15
-	-	-	20150731	1029808	Test Cente	43610	Pass	Pass	31-Jul-15
-	-	-	20150731	1029808	Test Cente	43610	Pass	Pass	31-Jul-15
-	-	-	20150731	1029809	Test Cente	43590	Pass	Pass	31-Jul-15
-	-	-	20150805	1029817	Test Cente	21273	Pass	Pass	8-May-15
-	-	-	20150805	1029817	Test Cente	21273	Pass	Pass	8-May-15
-	-	-	20150805	1029818	Test Cente	21306	Pass	Pass	8-May-15
-	-	-	20150805	1029819	Test Cente	21284	Pass	Pass	5-Aug-15
-	-	-	20150814	1029877	Test Cente	12793	Pass	Pass	14-Aug-15
-	-	-	20150814	1029877	Test Cente	12793	Pass	Pass	14-Aug-15
-	-	-	20150819	1029879	Test Cente	12840	Pass	Pass	19-Aug-15
-	-	-	20150805	1029910	Test Cente	14261	Pass	Pass	5-Aug-15
-	-	-	20150805	1029911	Test Cente	14240	Pass	Pass	5-Aug-15
-	-	-	20150722	1029916	Test Cente	13200	Pass	Pass	22-Jul-15
-	-	-	20150722	1029916	Test Cente	13200	Pass	Pass	22-Jul-15
-	-	-	20150513	1028800	Test Cente	17061	Pass	Pass	13-May-15
-	-	-	20150514	1029061	Test Cente	17256	Pass	Pass	14-May-15
-	-	-	20150529	1029062	Test Cente	17385	Pass	Pass	29-May-15
-	-	-	20150521	1029063	Test Cente	17348	Pass	Pass	21-May-15
-	-	-	20150515	1028824	Test Cente	20421	Pass	Pass	15-May-15
-	-	-	20150515	1028826	Test Cente	20449	Pass	Pass	15-May-15

-	-	-	20150515T	1028826	Test Cente	20449	Pass	Pass	15-May-15
-	-	-	20150618T	1029665	Test Cente	20697	Pass	Pass	18-Jun-15
-	-	-	20150618T	1029665	Test Cente	20697	Pass	Pass	18-Jun-15
-	-	-	20150619T	1029666	Test Cente	20747	Pass	Pass	19-Jun-15
-	-	-	20150619T	1029666	Test Cente	20747	Pass	Pass	19-Jun-15
-	-	-	20150429T	1029278	Test Cente	14932	Pass	Pass	29-Apr-15
-	-	-	20150513T	1029279	Test Cente	15055	Pass	Pass	15-May-14
-	-	-	20150513T	1029280	Test Cente	15034	Pass	Pass	13-May-15
-	-	-	20150520T	1029064	Test Cente	14346	Pass	Pass	20-May-15
-	-	-	20150520T	1029064	Test Cente	14346	Pass	Pass	20-May-15
-	-	-	20150526T	1029065	Test Cente	14396	Pass	Pass	26-May-15
-	-	-	20150731T	1029810	Test Cente	43579	Pass	Pass	31-Jul-15
-	-	-	20150514T	1028814	Test Cente	12731	Pass	Pass	14-May-15
-	-	-	20150514T	1028815	Test Cente	12757	Pass	Pass	14-May-15
-	-	-	20150514T	1028815	Test Cente	12757	Pass	Pass	14-May-15
-	-	-	20150519T	1028817	Test Cente	12780	Pass	Pass	19-May-15
-	-	-	20150519T	1028817	Test Cente	12780	Pass	Pass	19-May-15
-	-	-	20150519T	1028817	Test Cente	12780	Pass	Pass	19-May-15
-	-	-	20150514T	1028983	Test Cente	14894	Pass	Pass	14-May-15
-	-	-	20150904T	1030483	Test Cente	14702	Pass	Pass	4-Sep-15
-	-	-	20150904T	1030484	Test Cente	14734	Pass	Pass	4-Sep-15
-	-	-	20150902T	1030486	Test Cente	10403	Pass	Pass	2-Sep-15
-	-	-	20150901T	1030631	Test Cente	18768	Pass	Pass	9-Jan-15
-	-	-	20150902T	1030632	Test Cente	18816	Pass	Pass	9-Feb-15
-	-	-	20150902T	1030633	Test Cente	18796	Pass	Pass	2-Sep-15
-	-	-	20150518T	1028804	Test Cente	16380	Pass	Pass	18-May-15
-	-	-	20150515T	1028805	Test Cente	16351	Pass	Pass	15-May-15
-	-	-	20150728T	1029713	Test Cente	11744	Pass	Not Applic	28-Jul-15
-	-	-	20150728T	1029713	Test Cente	11744	Pass	Not Applic	28-Jul-15
-	-	-	20150728T	1029713	Test Cente	11744	Pass	Not Applic	28-Jul-15
-	-	-	20150728T	1029715	Test Cente	11755	Pass	Not Applic	28-Jul-15
-	-	-	20150728T	1029715	Test Cente	11755	Pass	Not Applic	28-Jul-15
-	-	-	20150728T	1029715	Test Cente	11755	Pass	Not Applic	28-Jul-15
-	-	-	20150728T	1029715	Test Cente	11755	Pass	Not Applic	28-Jul-15
-	-	-	20150520T	1028985	Test Cente	26387	Pass	Pass	20-May-15
-	-	-	20150520T	1028985	Test Cente	26387	Pass	Pass	20-May-15
-	-	-	20150520T	1028986	Test Cente	26419	Pass	Pass	20-May-15
-	-	-	20150611T	1029709	Test Cente	18785	Pass	Pass	11-Jun-15
-	-	-	20150612T	1029823	Test Cente	10816	Pass	Pass	12-Jun-15
-	-	-	20150605T	1029824	Test Cente	10793	Pass	Pass	5-Jun-15
-	-	-	20150605T	1029824	Test Cente	10793	Pass	Pass	5-Jun-15
-	-	-	20150519T	1029049	Test Cente	21258	Pass	Fail	19-May-15
-	-	-	20150519T	1029049	Test Cente	21258	Pass	Fail	19-May-15
-	-	-	20150729T	1029917	Test Cente	15780	Pass	Pass	29-Jul-15
-	-	-	20150729T	1029918	Test Cente	15812	Pass	Pass	29-Jul-15

TestCondition	Test Procedure	Fuel Type	SILUse	Trans Mode	Trans ConfigAt Test	TestAltitude	Dyno Type	RoadLoad Hp	DynaCoef A
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (48	51.3	28.78
As receive	US06	Federal Ce	N	Power	A	L	Electric (48	51.3	28.78
As receive	CVS 75 and	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 and	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 and	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 and	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 and	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	46.4	75.36
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	46.4	75.36
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	46.4	75.36
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	46.4	75.36
As receive	CVS 75 and	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	CVS 75 and	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	US06	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35

As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	54.5	24.99
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	54.5	-
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	CVS 75 an	Tier 2 Cert	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	CVS 75 an	Tier 2 Cert	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	24.45
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	31.66
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	31.66
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	31.66
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	52.7	53.7
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	52.7	53.7
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	52.7	53.7
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	52.7	53.7
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (48	46.1	63.99
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (48	46.1	63.99
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	50.5	71.66
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	50.5	71.66
As receive	US06	Federal Ce	N	Power	A	L	Electric (48	50.5	71.66
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	51.3	28.78
As receive	US06	Federal Ce	N	Power	A	L	Electric (48	51.3	28.78
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	51.3	28.78
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	51.3	28.78
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35

As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	46.4	75.36
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	46.4	75.36
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	US06	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	72.6	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	US06	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	US06	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35

As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	54.5	24.99
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	54.5	24.99
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	54.5	24.99
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	54.5	24.99
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	36	46.56
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	36	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	CVS 75 an	Tier 2 Cert	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	31.66
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	31.66
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62

As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	58.8	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	46.4	75.36
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	46.4	75.36
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	46.4	75.36
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	2-day evap	Tier 2 Cert	-	Power	A	L	-	72.6	-

As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	30.16
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	30.16
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	50.5	78
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	50.5	78
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	54.5	24.99
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	54.5	24.99
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	54.5	24.99
As receive	2-day evap	Tier 2 Cert	-	Power	A	L	-	54.5	-
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	36	46.56
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	31.66
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	31.66
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99

As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	28.78
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	28.78
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	28.78
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	51.3	28.78
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	56	91
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	56	91
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	46.4	75.36
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	46.4	75.36
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	46.4	75.36
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	46.4	75.36
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	46.4	75.36
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	46.4	75.36
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	46.4	75.36
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	51.74
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	51.74
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	51.74
As receive	2-day evap	Tier 2 Cert	-	Power	A	L	-	44.4	-
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	46.5	54.21
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	46.5	54.21
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	46.5	54.21
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	44.04
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	44.04

As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Electi	64.9	-31.03
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Electi	64.9	-31.03
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Electi	64.9	-31.03
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Electi	58.8	-18.62
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Electi	61.7	-66.35
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Electi	61.7	-66.35
As receive	CVS 75 and	Federal Ce	N	Power	A	L	4WD Electi	58.8	-0.22
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	54.5	24.99
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	54.5	24.99
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	54.5	24.99
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	36	46.56
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	36	46.56
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	36	46.56
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	36	46.56
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	36	46.56
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	36	46.56
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Electi	69.5	-27.19
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Electi	69.5	-27.19
As receive	Federal fue	Tier 2 Cert	-	Power	A	L	-	-	-
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Electi	73.5	-8.61
As receive	CVS 75 and	Federal Ce	N	Power	A	L	4WD Electi	62.1	-52.21
As receive	US06	Federal Ce	N	Power	A	L	4WD Electi	62.1	-52.21
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Electi	62.1	-52.21
As receive	CVS 75 and	Tier 2 Cert	N	Power	A	L	4WD Electi	62.1	-52.21
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	63.5
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	63.5
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	63.5
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	63.5
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	24.45
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	24.45
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Electi	63.1	-37.76
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Electi	63.1	-37.76
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Electi	63.1	-37.76
As receive	2-day evap	Tier 2 Cert	-	Power	A	L	-	63.1	-
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	31.66
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	31.66
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	31.66
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	31.66

As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	31.66
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	31.66
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	28.78
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	28.78
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	56	91
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	56	91
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	46.4	75.36
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	46.4	75.36
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	46.4	75.36
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	51.74
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	44.4	-
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	46.5	54.21
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	46.5	54.21

As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	2-day evap	Tier 2 Cert	-	Power	A	L	-	57.6	-
As receive	Federal fue	Tier 2 Cert	-	Power	A	L	-	57.6	-
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	CVS 75 and	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	CVS 75 and	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	CVS 75 and	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	54.5	24.99
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	54.5	24.99
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	54.5	24.99
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	54.5	24.99
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	Electric (48	36	46.56
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	36	46.56
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	36	46.56
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	Federal fue	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	CVS 75 and	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	CVS 75 and	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	CVS 75 and	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	CVS 75 and	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21

As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	CVS 75 an	Tier 2 Cert	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	CVS 75 an	Tier 2 Cert	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	CVS 75 an	Tier 2 Cert	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	31.66
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	31.66
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	31.66
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	2-day eva	Tier 2 Cert	-	Power	A	L	-	58.8	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	51.3	28.78
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	51.3	28.78
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	51.3	28.78
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	51.3	28.78
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	51.3	28.78
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45

As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	46.4	75.36
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	US06	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	54.5	24.99

As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	54.5	24.99
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	36	46.56
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	36	46.56
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	36	46.56
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	36	46.56
As receive	2-day eva	Tier 2 Cert	Y	Power	A	L	-	36	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	31.66
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	31.66
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69

As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	51.3	28.78
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	51.3	28.78
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	51.3	28.78
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	51.3	28.78
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	46.4	75.36
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	46.4	75.36
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	46.4	75.36
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	44.4	51.74
As receive	US06	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	US06	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	US06	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	54.5	24.99

As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	54.5	24.99
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	36	46.56
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	36	46.56
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	36	46.56
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	36	46.56
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	36	46.56
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	2-day eva	Tier 2 Cert	-	Power	A	L	-	-	-
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	CVS 75 an	Tier 2 Cert	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	63.1	-
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	31.66
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	31.66
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	31.66
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	HWFE	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	US06	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37

As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (48	51.3	28.78
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-79.35
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	58.8	-52.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	56	91
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	46.4	75.36
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	75.7	-50.33
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	US06	Federal Ce	N	Power	A	L	Electric (48	46.5	54.21
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	49.7	44.04
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	72.6	85.88
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (48	57.6	30.16
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-31.03
As receive	CVS 75 an	Federal Ce	N	Power	A	L	Electric (48	50.5	78
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	61.7	-66.35
As receive	2-day evap	Tier 2 Cert	-	Power	A	L	-	-	-
As receive	Federal fu	Tier 2 Cert	-	Power	A	L	-	-	-
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22

As receive	HWFE	Federal Ce	N	Power	A	L	4WD Elect	58.8	-0.22
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	54.5	24.99
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	54.5	24.99
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	54.5	24.99
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	54.5	24.99
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	36	46.56
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	36	46.56
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	36	46.56
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	69.5	-27.19
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	73.5	-8.61
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	CVS 75 an	Tier 2 Cert	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	CVS 75 an	Tier 2 Cert	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	CVS 75 an	Tier 2 Cert	N	Power	A	L	4WD Elect	62.1	-52.21
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	44.4	63.5
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-18.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	49.7	24.45
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	HWFE	Tier 2 Cert	N	Power	A	L	4WD Elect	63.1	-37.76
As receive	US06	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	31.66
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	57.6	31.66
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	HWFE	Tier 2 Cert	N	Power	A	L	Electric (4	52.7	53.7
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	CVS 75 an	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	US06	Federal Ce	N	Not applic	M	L	Electric (4	46.1	63.99
As receive	HWFE	Federal Ce	N	Power	A	L	Electric (4	50.5	71.66
As receive	CVS 75 an	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	US06	Federal Ce	N	Power	A	L	4WD Elect	75.7	-16.62
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	58.8	-0.37
As receive	Federal fu	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69
As receive	US06	Tier 2 Cert	N	Power	A	L	4WD Elect	64.9	-43.69

DynaCoeff B	DynaCoeff C	Dyna TargetCoeff A	Dyna TargetCoeff B	Dyna TargetCoeff C	Test Info Comment	EPA CalcFed Pass	EPA CalcCA Pass	Test Result Name	Weighted Result
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Carbon dic	256.103
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	SFTP Comp	0.033
0.5883	0.02866	163	1.1	0.0285	Start / Sto	Pass	Pass	Non-meth	0.018
0.5883	0.02866	163	1.1	0.0285	Start / Sto	Pass	Pass	Carbon dic	343.655
0.5883	0.02866	163	1.1	0.0285	Start / Sto	Pass	Pass	CH4 - Met	0.019
0.5883	0.02866	163	1.1	0.0285	Start / Sto	Pass	Pass	Total Hydr	0.034
0.5883	0.02866	163	1.1	0.0285	-	Pass	Pass	Carbon Mc	0.016
0.5883	0.02866	163	1.1	0.0285	-	Pass	Pass	SFTP Comp	0.001
0.5883	0.02866	163	1.1	0.0285	-	Pass	Pass	Combined	285.3
0.5883	0.02866	163	1.1	0.0285	-	Pass	Pass	Carbon Mc	0.002
-0.2036	0.04731	193	0.34	0.048	Methane r	Fail	Pass	Manufactu	25.109
-0.2036	0.04731	193	0.34	0.048	-	Pass	Pass	Nitrogen C	0.074
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Nitrogen C	0.01
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Non-meth	0.002
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	SFTP Comp	0.005
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Non-meth	0.004
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Non-meth	0.004
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Non-meth	0.003
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Nitrogen C	0.002
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Non-meth	0.01
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Carbon-Re	455.7
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	CH4 - Met	0.004
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	Carbon Mc	0.252
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Carbon dic	258.108
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Combined	413.2
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Non-meth	0.009
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Nitrogen C	0.006
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Nitrogen C	0.001
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Carbon-Re	345.9
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Total Hydr	0.035
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Carbon Mc	0.116
0.891	0.02577	164	1.23	0.0299	E85 emissi	Pass	Pass	Nitrogen C	0.018
0.891	0.02577	164	1.23	0.0299	-	Pass	Pass	Carbon-Re	218.1
0.891	0.02577	164	1.23	0.0299	-	Pass	Pass	Carbon Mc	0.2
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	Total Hydr	0.062
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	SFTP Comp	0.062
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	Non-meth	0.004
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Carbon dic	282.782
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Carbon-Re	282.9
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Manufactu	31.743
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Manufactu	38.89

1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Nitrogen C	0.006
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Nitrogen C	0.032
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Manufactu	26.256
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Non-methá	0
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Nitrogen C	0.034
-	-	-	-	-	-	Pass	Pass	Hydrocarb	0.006
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Manufactu	0.005
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Non-methá	0.013
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Formaldeh	0.001
0.9805	0.02463	163	1.1	0.0285	Start / Sto	Pass	Pass	Formaldeh	0
0.9805	0.02463	163	1.1	0.0285	-	Pass	Pass	Particulate	0.003
0.9805	0.02463	163	1.1	0.0285	-	Pass	Pass	Nitrogen C	0.02
0.9805	0.02463	163	1.1	0.0285	-	Pass	Pass	Non-methá	0
0.9805	0.02463	163	1.1	0.0285	-	Pass	Pass	Carbon-Re	198.6
1.1	0.0285	163	0.9805	0.02463	Start / Sto	Pass	Pass	CH4 - Metł	0.013
1.1	0.0285	163	0.9805	0.02463	Start / Sto	Pass	Pass	Manufactu	29.7
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Manufactu	20.473
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Carbon Mc	0.032
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	SFTP Comp	0.054
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Combined	333.6
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Combined	273.7
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Carbon Mc	0.06
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	CH4 - Metł	0.004
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Non-methá	0.016
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Carbon dic	288.298
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Carbon Mc	0.307
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Non-methá	0.001
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Particulate	0
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	SFTP Comp	0.001
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Particulate	0.001
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Carbon dic	266.677
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	SFTP Comp	0.079
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	CH4 - Metł	0.04
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	SFTP Comp	0.176
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Carbon Mc	0.003
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Nitrogen C	0.026
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Non-methá	0.013
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Combined	294.2
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Particulate	0.002
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Non-methá	0
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Nitrogen C	0.017
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Carbon dic	170.308
0.5883	0.02866	163	1.1	0.0285	-	Pass	Pass	Carbon dic	209.333
0.5883	0.02866	163	1.1	0.0285	Start /m St	Pass	Pass	Total Hydr	0.032
0.5883	0.02866	163	1.1	0.0285	Start /m St	Pass	Pass	Carbon Mc	0.234

-0.2036	0.04731	193	0.34	0.048	Methane r	Fail	Pass	Total Hydr	0.048
-0.2036	0.04731	193	0.34	0.048	Methane r	Fail	Pass	Carbon dic	404.73
-0.2036	0.04731	193	0.34	0.048	-	Pass	Pass	SFTP Comp	0.001
-0.2036	0.04731	193	0.34	0.048	-	Pass	Pass	Carbon Mc	0.003
-0.2036	0.04731	193	0.34	0.048	-	Pass	Pass	Manufactu	42.79
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Total Hydr	0.005
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Formaldeh	0
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Carbon-Re	223
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Carbon-Re	203
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Manufactu	44.306
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Manufactu	24.588
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Non-metha	0
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Manufactu	39.472
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	Non-metha	0.001
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	SFTP Comp	0.016
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	Nitrogen C	0.001
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	Carbon-Re	208.8
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Non-metha	0.012
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Manufactu	39.379
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Carbon-Re	258.4
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Nitrogen C	0.021
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Carbon-Re	170.9
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	SFTP Comp	0.225
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Formaldeh	0
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	CH4 - Meth	0.004
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	SFTP Comp	0.02
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Carbon Mc	0.051
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Carbon-Re	183.9
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Non-metha	0.001
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Manufactu	48.837
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Nitrogen C	0.012
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Non-metha	0.012
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Carbon-Re	253.8
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Carbon dic	253.461
-	-	-	-	-	-	Pass	Pass	Hydrocarb	0.013
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Formaldeh	0.001
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Manufactu	27.023
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Combined	280.9
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Non-metha	0.005
0.891	0.02577	164	1.23	0.0299	E85 emissi	Pass	Pass	Manufactu	24.529
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	Carbon Mc	0.006
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	SFTP Comp	0.001
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Carbon dic	375.594
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Non-metha	0.014
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Total Hydr	0.016

-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Particulate	0
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Carbon Mc	0.007
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Non-meth	0.018
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Nitrogen C	0.025
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Carbon Mc	0.355
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Manufactu	43.638
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	SFTP Comp	0.011
-	-	-	-	-	-	Pass	Pass	Hydrocarb	0.005
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Particulate	0.002
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Manufactu	0.002
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Combined	319.3
0.9805	0.02463	163	1.1	0.0285	Start / Sto	Pass	Pass	Carbon dic	343.787
0.9805	0.02463	163	1.1	0.0285	-	Pass	Pass	Nitrogen C	0.047
0.9805	0.02463	163	1.1	0.0285	-	Pass	Pass	Combined	278.1
1.1	0.0285	163	0.9805	0.02463	Start / Sto	Pass	Pass	Carbon dic	342
0.1136	0.0288	127	0.568	0.0288	NMOG = 0	Pass	Pass	CH4 - Met	0.007
0.1136	0.0288	127	0.568	0.0288	NMOG = 0	Pass	Pass	Non-meth	0.007
0.1136	0.0288	127	0.568	0.0288	NMOG = 0	Pass	Pass	Carbon dic	298.778
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Non-meth	0.026
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Nitrogen C	0.017
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Carbon Mc	0.313
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Manufactu	20.271
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Non-meth	0.025
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Nitrogen C	0.016
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Carbon dic	290.306
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Manufactu	30.894
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Non-meth	0.013
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Carbon Mc	0.2
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Formaldeh	0
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Carbon Mc	0.18
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Manufactu	47.676
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Total Hydr	0.023
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Non-meth	0.018
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Carbon dic	401.834
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Nitrogen C	0.016
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Total Hydr	0.03
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Non-meth	0.028
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Carbon Mc	0.066
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Manufactu	37.14
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Carbon dic	170.347
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Carbon-Re	266.9
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Manufactu	55.187
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Non-meth	0.008
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Manufactu	25.718
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Carbon Mc	0.006

-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Non-meth	0.001
-0.2312	0.04609	193	0.34	0.048	NMOG fail	Pass	Fail	Carbon Mo	0.451
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Carbon dic	281.284
-	-	-	-	-	-	Pass	Pass	Hydrocarb	0.013
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Formaldeh	0.001
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Carbon dic	439.8
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Carbon-Re	359.1
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Nitrogen C	0.039
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Nitrogen C	0.004
0.5883	0.02866	163	1.1	0.0285	Start / Sto	Pass	Pass	Manufactu	29.57
0.5883	0.02866	163	1.1	0.0285	Start / Sto	Pass	Pass	Carbon Mo	0.247
0.5883	0.02866	163	1.1	0.0285	Start /m St	Pass	Pass	Nitrogen C	0.05
0.5883	0.02866	163	1.1	0.0285	Start /m St	Pass	Pass	Formaldeh	0
0.5883	0.02866	163	1.1	0.0285	Start /m St	Pass	Pass	Manufactu	29.01
0.5883	0.02866	163	1.1	0.0285	Start /m St	Pass	Pass	Non-meth	0.017
-0.2036	0.04731	193	0.34	0.048	Methane r	Fail	Pass	Carbon-Re	405.2
-0.2036	0.04731	193	0.34	0.048	Methane r	Fail	Pass	Nitrogen C	0.027
-0.2036	0.04731	193	0.34	0.048	-	Pass	Pass	SFTP Comp	0.119
-0.2036	0.04731	193	0.34	0.048	-	Pass	Pass	Combined	329.9
-0.2036	0.04731	193	0.34	0.048	-	Pass	Pass	Nitrogen C	0.011
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Carbon Mo	0.137
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Manufactu	27.186
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Manufactu	40.265
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Particulate	0.002
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	SFTP Comp	0.004
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Nitrogen C	0.03
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Particulate	0.001
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	CH4 - Met	0.038
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Carbon Mo	0.137
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Non-meth	0.001
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Combined	366.7
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	Non-meth	0.005
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	Manufactu	29.441
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	Carbon-Re	302.7
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	Combined	260.4
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	Manufactu	42.677
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Carbon Mo	0.134
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Carbon dic	170.922
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Nitrogen C	0.016
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Non-meth	0.017
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Carbon Mo	2.256
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Carbon-Re	277.9
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Total Hydr	0.011
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Non-meth	0.025
-	-	-	-	-	-	Pass	Pass	Total Hydr	0.375

1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Carbon dic	331.314
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	SFTP Comp	0.026
0.891	0.02577	164	1.23	0.0299	E85 emissi	Pass	Pass	Formaldeh	0.001
0.891	0.02577	164	1.23	0.0299	-	Pass	Pass	SFTP Comp	0.031
0.891	0.02577	164	1.23	0.0299	-	Pass	Pass	Non-metha	0.003
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	Non-metha	0.019
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	Carbon Mo	0.002
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Non-metha	0.004
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Carbon Mo	0.06
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Non-metha	0.014
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Carbon-Re	376.5
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	SFTP Comp	0.027
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Carbon dic	228.716
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Nitrogen C	0.062
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Manufactu	41.484
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Manufactu	30.138
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Carbon Mo	0.75
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Carbon dic	203.954
-	-	-	-	-	-	Pass	Pass	Total Hydr	0.245
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Carbon Mo	0.07
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Carbon-Re	380.6
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Non-metha	0.019
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Carbon dic	492.768
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Particulate	0.0027
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Non-metha	0.028
0.9805	0.02463	163	1.1	0.0285	Start / Sto	Pass	Pass	Manufactu	29.563
0.9805	0.02463	163	1.1	0.0285	-	Pass	Pass	Particulate	0.001
0.1136	0.0288	127	0.568	0.0288	NMOG = 0	Pass	Pass	Non-metha	0.014
0.1136	0.0288	127	0.568	0.0288	NMOG = 0	Pass	Pass	Formaldeh	0
0.1136	0.0288	127	0.568	0.0288	-	Pass	Pass	Combined	257.1
0.1136	0.0288	127	0.568	0.0288	-	Pass	Pass	Carbon Mo	0.121
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Carbon dic	438.048
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Non-metha	0.013
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Manufactu	31.64
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Combined	244.6
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	CH4 - Metl	0.006
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Non-metha	0.043
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Carbon-Re	249.1
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Manufactu	36.052
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Carbon Mo	0.496
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Non-metha	0.027
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Nitrogen C	0.008
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Formaldeh	0
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Nitrogen C	0.021
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Manufactu	36.38

-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Total Hydr	0.08
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Nitrogen C	0.158
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	SFTP Comp	0.108
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Carbon-Re	170.4
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Non-metha	0.003
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Nitrogen C	0.012
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Non-metha	0.013
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Particulate	0.001
-0.2312	0.04609	193	0.34	0.048	NMOG fail	Pass	Fail	Formaldeh	0.001
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	SFTP Comp	0.003
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	SFTP Comp	0.049
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Carbon-Re	281.5
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Combined	368.9
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Non-metha	0.015
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Carbon Mo	0.212
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	CH4 - Meth	0.013
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Nitrogen C	0.043
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Formaldeh	0
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Nitrogen C	0.047
0.5883	0.02866	163	1.1	0.0285	-	Pass	Pass	Nitrogen C	0.002
0.5883	0.02866	163	1.1	0.0285	-	Pass	Pass	Non-metha	0
0.5883	0.02866	163	1.1	0.0285	Start /m St	Pass	Pass	CH4 - Meth	0.017
-0.2036	0.04731	193	0.34	0.048	Methane r	Fail	Pass	Non-metha	0.013
-0.2036	0.04731	193	0.34	0.048	-	Pass	Pass	Carbon Mo	0.005
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Carbon-Re	338.4
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Carbon dic	222.886
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Nitrogen C	0.01
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Carbon-Re	256.2
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	CH4 - Meth	0.002
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Manufactu	30.015
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Carbon Mo	0.108
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Manufactu	30.004
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Carbon Mo	0.366
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Nitrogen C	0.034
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Carbon Mo	0.006
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	Carbon dic	302.25
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	Nitrogen C	0.008
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	Non-metha	0.005
-	-	-	-	-	-	Pass	Pass	Total Hydr	0.245
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Nitrogen C	0.036
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Particulate	0.001
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Carbon Mo	0.002
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Carbon-Re	307.8
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Carbon Mo	0.485
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Combined	235.6

0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Carbon Mc	3.721
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Non-methá	0.009
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Carbon-Re	332.3
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Carbon dic	217.907
0.891	0.02577	164	1.23	0.0299	E85 emissi	Pass	Pass	Carbon-Re	366.1
0.891	0.02577	164	1.23	0.0299	-	Pass	Pass	Manufactu	26.978
0.891	0.02577	164	1.23	0.0299	-	Pass	Pass	Non-methá	0.009
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	Carbon Mc	0.069
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	Manufactu	53.188
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	Combined	235.1
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Combined	368.5
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	CH4 - Metł	0.003
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Nitrogen C	0.014
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Manufactu	24.505
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	CH4 - Metł	0.005
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Formaldeh	0.001
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Carbon-Re	204.5
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Manufactu	56.67
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Particulate	0.001
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Formaldeh	0
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Carbon-Re	155.4
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Non-methá	0.001
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Nitrogen C	0
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	CH4 - Metł	0.005
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Non-methá	0.02
-	-	-	-	-	-	Pass	Pass	Total Hydr	0.007
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	CH4 - Metł	0.006
0.9805	0.02463	163	1.1	0.0285	Start / Sto	Pass	Pass	Carbon Mc	0.169
0.9805	0.02463	163	1.1	0.0285	-	Pass	Pass	Non-methá	0
0.9805	0.02463	163	1.1	0.0285	-	Pass	Pass	Carbon dic	198.636
1.1	0.0285	163	0.9805	0.02463	Start / Sto	Pass	Pass	Non-methá	0.011
0.1136	0.0288	127	0.568	0.0288	NMOG = 0	Pass	Pass	Nitrogen C	0.008
0.1136	0.0288	127	0.568	0.0288	NMOG = 0	Pass	Pass	Carbon Mc	0.739
0.1136	0.0288	127	0.568	0.0288	-	Pass	Pass	Non-methá	0.001
0.1136	0.0288	127	0.568	0.0288	-	Pass	Pass	Carbon dic	204.4
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	CH4 - Metł	0.004
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	SFTP Comp	0.021
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Carbon Mc	1.884
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Nitrogen C	0.034
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Non-methá	0.031
-	-	-	-	-	-	Pass	Pass	Total Hydr	0.27
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Carbon Mc	1.567
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Carbon-Re	208.9
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Manufactu	42.66
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Carbon dic	325.788

1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Carbon-Re	326.7
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Nitrogen C	0.008
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	CH4 - Metl	0.004
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Carbon-Re	288.6
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Manufactu	31.113
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Non-metha	0.032
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Nitrogen C	0.017
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	CH4 - Metl	0.068
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Manufactu	34.28
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Carbon dic	184.259
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Carbon dic	456.134
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Manufactu	22.293
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Carbon Mc	0.106
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Nitrogen C	0.177
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Combined	364.5
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Carbon-Re	252.1
-0.2312	0.04609	193	0.34	0.048	NMOG fail	Pass	Fail	Nitrogen C	0.03
-0.2312	0.04609	193	0.34	0.048	NMOG fail	Pass	Fail	Carbon dic	432.635
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Nitrogen C	0.039
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Manufactu	31.655
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Nitrogen C	0.009
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Non-metha	0.033
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Carbon Mc	0.785
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Total Hydr	0.017
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Carbon Mc	1.824
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Carbon dic	214.441
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Non-metha	0.007
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Non-metha	0.007
0.5883	0.02866	163	1.1	0.0285	Start / Sto	Pass	Pass	Particulate	0.001
0.5883	0.02866	163	1.1	0.0285	-	Pass	Pass	SFTP Comp	0.055
0.5883	0.02866	163	1.1	0.0285	-	Pass	Pass	Manufactu	48.61
0.5883	0.02866	163	1.1	0.0285	-	Pass	Pass	Nitrogen C	0.001
-0.2036	0.04731	193	0.34	0.048	-	Pass	Pass	Carbon-Re	237.8
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Manufactu	26.533
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Nitrogen C	0.002
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Total Hydr	0.006
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Non-metha	0.001
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Carbon Mc	0.027
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Total Hydr	0.043
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Nitrogen C	0.197
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Carbon-Re	257.8
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	Carbon Mc	0.409
-	-	-	-	-	-	Pass	Pass	Hydrocarb	0.011
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Carbon Mc	0.004
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	SFTP Comp	0.002

0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Combined	219
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Non-meth	0.074
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Non-meth	0.003
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Manufactu	25.961
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Nitrogen C	0.013
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Non-meth	0.026
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	SFTP Comp	0.033
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Manufactu	23.814
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Non-meth	0.031
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Nitrogen C	0.013
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Nitrogen C	0.002
-	-	-	-	-	-	Pass	Pass	Total Hydr	0.167
-	-	-	-	-	-	Pass	Pass	Hydrocarb	0.007
0.891	0.02577	164	1.23	0.0299	-	Pass	Pass	Carbon Mo	0.745
0.891	0.02577	164	1.23	0.0299	-	Pass	Pass	Nitrogen C	0.021
0.891	0.02577	164	1.23	0.0299	-	Pass	Pass	Combined	299.5
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	Non-meth	0.013
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	Non-meth	0.013
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	CH4 - Met	0.056
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	Manufactu	37.565
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	Carbon dic	191.212
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Carbon Mo	0.529
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Carbon Mo	1
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Non-meth	0.011
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Combined	310.2
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	CH4 - Met	0.035
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Carbon Mo	0.205
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Carbon dic	245.267
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Combined	338.8
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Carbon Mo	0.004
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Total Hydr	0.021
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Carbon dic	294.922
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Non-meth	0.008
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Combined	254.9
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Non-meth	0.005
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Nitrogen C	0.02
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Carbon-Re	139.3
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Carbon Mo	0.958
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Nitrogen C	0.018
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Carbon Mo	0.588
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Nitrogen C	0.033
0.9805	0.02463	163	1.1	0.0285	Start / Sto	Pass	Pass	Particulate	0
0.9805	0.02463	163	1.1	0.0285	Start / Sto	Pass	Pass	Non-meth	0.018
0.9805	0.02463	163	1.1	0.0285	Start / Sto	Pass	Pass	Non-meth	0.018
0.9805	0.02463	163	1.1	0.0285	Start / Sto	Pass	Pass	Nitrogen C	0.041

0.9805	0.02463	163	1.1	0.0285	-	Pass	Pass	Carbon Mc	0.003
0.9805	0.02463	163	1.1	0.0285	-	Pass	Pass	Carbon Mc	0.002
1.1	0.0285	163	0.9805	0.02463	Start / Sto	Pass	Pass	Non-metha	0.011
1.1	0.0285	163	0.9805	0.02463	Start / Sto	Pass	Pass	Nitrogen C	0.042
1.1	0.0285	163	0.9805	0.02463	Start / Sto	Pass	Pass	Particulate	0.007
0.1136	0.0288	127	0.568	0.0288	NMOG = 0	Pass	Pass	Total Hydr	0.02
0.1136	0.0288	127	0.568	0.0288	-	Pass	Pass	Nitrogen C	0.038
0.1136	0.0288	127	0.568	0.0288	-	Pass	Pass	Carbon-Re	204.6
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Carbon-Re	438.6
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	CH4 - Metl	0.003
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Total Hydr	0.028
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Total Hydr	0.016
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Manufactu	22.294
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Non-metha	0.018
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Carbon Mc	0.954
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	SFTP Comp	0.021
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Nitrogen C	0.001
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Carbon dic	208.766
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Non-metha	0.016
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	SFTP Comp	0.028
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Carbon dic	279.193
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Non-metha	0.013
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Nitrogen C	0.062
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Carbon Mc	0.027
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Carbon-Re	184.4
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Carbon Mc	0.005
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Nitrogen C	0.003
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Non-metha	0.004
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Nitrogen C	0.032
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Carbon-Re	456.4
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Carbon dic	252.1
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Nitrogen C	0.026
-0.2312	0.04609	193	0.34	0.048	NMOG fail	Pass	Fail	Carbon-Re	433.5
-	-	-	-	-	-	Pass	Pass	Total Hydr	0.0339
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Nitrogen C	0.017
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	CH4 - Metl	0.003
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Manufactu	26.615
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Total Hydr	0.018
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Carbon Mc	0.011
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Manufactu	40.44
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	SFTP Comp	0.002
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Combined	217.6
0.5883	0.02866	163	1.1	0.0285	Start / Sto	Pass	Pass	Nitrogen C	0.026
0.5883	0.02866	163	1.1	0.0285	Start /m St	Pass	Pass	Particulate	0.001
-0.2036	0.04731	193	0.34	0.048	Methane r	Fail	Pass	CH4 - Metl	0.041

-0.2036	0.04731	193	0.34	0.048-	Pass	Pass	Non-metha	0
-0.2036	0.04731	193	0.34	0.048-	Pass	Pass	Carbon dic	237.777
0.0912	0.0351	182	0.456	0.0351-	Pass	Pass	CH4 - Metl	0.001
0.0912	0.0351	182	0.456	0.0351-	Pass	Pass	Carbon dic	338.217
0.0912	0.0351	182	0.456	0.0351-	Pass	Pass	SFTP Comp	0.034
0.0912	0.0351	182	0.456	0.0351-	Pass	Pass	Carbon Mc	0.085
-0.1147	0.03802	159	0.17	0.0389-	Pass	Pass	Carbon dic	203.002
-0.3829	0.05032	200	1.2	0.0467-	Pass	Pass	Manufactu	22.327
-0.3829	0.05032	200	1.2	0.0467-	Pass	Pass	Carbon dic	455.379
-0.3829	0.05032	200	1.2	0.0467-	Pass	Pass	Carbon Mc	0.002
-0.3829	0.05032	200	1.2	0.0467-	Pass	Pass	Carbon dic	257.771
0.1564	0.02863	127	0.568	0.0288-	Pass	Pass	Total Hydr	0.008
0.1564	0.02863	127	0.568	0.0288-	Pass	Pass	Particulate	0.003
0.1564	0.02863	127	0.568	0.0288-	Pass	Pass	Formaldeh	0
0.1564	0.02863	127	0.568	0.0288-	Pass	Pass	Carbon Mc	0.126
0.1564	0.02863	127	0.568	0.0288-	Pass	Pass	Non-metha	0.001
0.2488	0.02815	140	0.8	0.0275-	Pass	Pass	CH4 - Metl	0.014
0.2488	0.02815	140	0.8	0.0275-	Pass	Pass	Non-metha	0
0.3901	0.04654	191	1.189	0.0467-	Pass	Pass	Nitrogen C	0.039
0.3901	0.04654	191	1.189	0.0467-	Pass	Pass	Carbon dic	304.164
0.6542	0.02592	138	0.74	0.0273-	Pass	Pass	Particulate	0.002
0.6542	0.02592	138	0.74	0.0273-	Pass	Pass	Manufactu	32.316
0.6542	0.02592	138	0.74	0.0273-	Pass	Pass	SFTP Comp	0.006
0.8903	0.03841	178	1.4	0.0375-	Pass	Pass	Formaldeh	0.001
0.8903	0.03841	178	1.4	0.0375-	Pass	Pass	SFTP Comp	0.006
0.8903	0.03841	178	1.4	0.0375-	Pass	Pass	Combined	304.5
0.8903	0.03841	178	1.4	0.0375-	Pass	Pass	Manufactu	35.383
1.3503	0.02112	124	1.4	0.0225-	Pass	Pass	Carbon Mc	0.559
1.3503	0.02112	124	1.4	0.0225-	Pass	Pass	Non-metha	0.03
1.3503	0.02112	124	1.4	0.0225-	Pass	Pass	Carbon-Re	218.1
0.891	0.02577	164	1.23	0.0299	E85 emissi	Pass	Pass	Non-metha	0.017
0.891	0.02577	164	1.23	0.0299	E85 emissi	Pass	Pass	CH4 - Metl	0.004
0.891	0.02577	164	1.23	0.0299	E85 emissi	Pass	Pass	Total Hydr	0.02
0.891	0.02577	164	1.23	0.0299	E85 emissi	Pass	Pass	Carbon dic	364.7
0.891	0.02577	164	1.23	0.0299	E85 emissi	Pass	Pass	Non-metha	0.017
0.1	0.0331	156	0.5	0.0331-	Pass	Pass	Carbon dic	270.57
0.1	0.0331	156	0.5	0.0331-	Pass	Pass	Nitrogen C	0.004
-0.0201	0.04536	193	0.34	0.048-	Pass	Pass	Nitrogen C	0.005
1.1122	0.02617	153	1.19	0.03-	Pass	Pass	Nitrogen C	0.018
1.1122	0.02617	153	1.19	0.03-	Pass	Pass	Manufactu	23.67
-0.6186	0.04845	193	0.34	0.048-	Pass	Pass	Carbon dic	414.773
-0.6186	0.04845	193	0.34	0.048-	Pass	Pass	Total Hydr	0.044
-0.6186	0.04845	193	0.34	0.048-	Pass	Pass	SFTP Comp	0.001
-0.6186	0.04845	193	0.34	0.048-	Pass	Pass	SFTP Comp	0.118
1.1021	0.02586	163	0.67	0.0298-	Pass	Pass	Carbon-Re	296.2

1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Non-meth	0.011
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Carbon dic	157.02
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Nitrogen C	0.006
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Non-meth	0.005
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Non-meth	0.001
-	-	-	-	-	-	Pass	Pass	Total Hydr	0.078
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Formaldeh	0.001
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Carbon Mc	1.017
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Carbon dic	243.91
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Non-meth	0.006
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Non-meth	0.027
0.9805	0.02463	163	1.1	0.0285	-	Pass	Pass	Manufactu	51.224
0.1136	0.0288	127	0.568	0.0288	NMOG = 0	Pass	Pass	Carbon-Re	300
0.1136	0.0288	127	0.568	0.0288	-	Pass	Pass	SFTP Comp	0.023
0.1136	0.0288	127	0.568	0.0288	-	Pass	Pass	Manufactu	43.555
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Formaldeh	0.001
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Carbon Mc	2.233
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Nitrogen C	0.005
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Nitrogen C	0.001
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Non-meth	0.001
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Particulate	0.005
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Formaldeh	0.001
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Carbon Mc	0.562
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Manufactu	28.949
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Particulate	0.001
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Manufactu	29.694
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	SFTP Comp	0.003
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Carbon Mc	0.14
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Non-meth	0.022
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Carbon Mc	0.032
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Carbon Mc	0.004
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Nitrogen C	0.017
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Total Hydr	0.066
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Non-meth	0.008
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Manufactu	40.359
-0.2312	0.04609	193	0.34	0.048	NMOG fail	Pass	Fail	Particulate	0.004
-0.2312	0.04609	193	0.34	0.048	NMOG fail	Pass	Fail	Manufactu	20.557
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Manufactu	20.267
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Non-meth	0.004
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Carbon Mc	0.125
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	CH4 - Met	0.004
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Manufactu	20.23
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Total Hydr	0.036
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Non-meth	0.014
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Manufactu	25.003

0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Manufactu	41.808
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Carbon Mc	0.092
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Manufactu	39.7
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Manufactu	59.74
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Carbon Mc	0.002
-0.2036	0.04731	193	0.34	0.048	Methane r	Fail	Pass	Particulate	0
-0.2036	0.04731	193	0.34	0.048	Methane r	Fail	Pass	Carbon Mc	0.227
-0.2036	0.04731	193	0.34	0.048	-	Pass	Pass	Non-metha	0.001
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Non-metha	0.004
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Particulate	0.002
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Nitrogen C	0.059
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Non-metha	0.001
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Formaldeh	0
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Carbon dic	299.533
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	SFTP Comp	0.026
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	Manufactu	29.782
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	Nitrogen C	0.025
0.1564	0.02863	127	0.568	0.0288	-	Pass	Pass	Carbon dic	208.601
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	SFTP Comp	0.026
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Manufactu	38.336
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Manufactu	59.529
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Nitrogen C	0.136
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Non-metha	0.008
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Carbon Mc	0.195
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	CH4 - Metl	0.006
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Carbon dic	344.491
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Particulate	0.002
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Nitrogen C	0.006
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	CH4 - Metl	0.006
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Nitrogen C	0.011
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Non-metha	0.009
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Manufactu	27.732
0.891	0.02577	164	1.23	0.0299	E85 emissi	Pass	Pass	Carbon Mc	0.848
0.891	0.02577	164	1.23	0.0299	-	Pass	Pass	Nitrogen C	0.005
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	Nitrogen C	0.019
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	Manufactu	34.054
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	Nitrogen C	0
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Formaldeh	0
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Manufactu	25.529
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Carbon Mc	0.248
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Carbon-Re	229.1
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Non-metha	0.014
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Non-metha	0.014
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Non-metha	0.001
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Carbon Mc	0.788

1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	SFTP Comp	0.057
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Carbon Mo	0.134
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Total Hydr	0.006
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Manufactu	43.799
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Manufactu	63.949
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Carbon dio	139.233
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Total Hydr	0.023
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	SFTP Comp	0.049
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Carbon Mo	0.342
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Carbon-Re	244.5
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Manufactu	36.45
-	-	-	-	-	-	Pass	Pass	Total Hydr	0.267
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Carbon-Re	499.4
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Total Hydr	0.033
0.9805	0.02463	163	1.1	0.0285	Start / Sto	Pass	Pass	CH4 - Met	0.03
0.9805	0.02463	163	1.1	0.0285	Start / Sto	Pass	Pass	Total Hydr	0.045
1.1	0.0285	163	0.9805	0.02463	Start / Sto	Pass	Pass	Formaldeh	0
0.1136	0.0288	127	0.568	0.0288	NMOG = 0	Pass	Pass	Manufactu	29.703
0.1136	0.0288	127	0.568	0.0288	-	Pass	Pass	Manufactu	30.307
0.1136	0.0288	127	0.568	0.0288	-	Pass	Pass	Carbon Mo	0.289
0.1136	0.0288	127	0.568	0.0288	-	Pass	Pass	Nitrogen C	0.001
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Non-metha	0.026
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Nitrogen C	0.01
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Carbon-Re	188.4
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Carbon dio	188.296
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Carbon-Re	402.8
-	-	-	-	-	-	Pass	Pass	Hydrocarb	0.038
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Non-metha	0.007
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Formaldeh	0.001
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Manufactu	27.279
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Nitrogen C	0.001
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Non-metha	0.022
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Manufactu	59.7
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Combined	230.5
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Manufactu	38.121
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	CH4 - Met	0.061
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Carbon Mo	0.024
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Non-metha	0.031
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	SFTP Comp	0
-0.2312	0.04609	193	0.34	0.048	NMOG fail	Pass	Fail	Non-metha	0.041
-0.2312	0.04609	193	0.34	0.048	NMOG fail	Pass	Fail	Non-metha	0.039
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Carbon Mo	4.098
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Non-metha	0.034
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Carbon-Re	440.4
-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Non-metha	0.034

-0.2312	0.04609	193	0.34	0.048	-	Pass	Pass	Carbon Mc	0.344
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Particulate	0.002
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Formaldeh	0.001
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Non-metha	0.004
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Carbon-Re	214.8
0.2799	0.02788	140	0.8	0.0275	-	Pass	Pass	Non-metha	0.001
0.5883	0.02866	163	1.1	0.0285	Start / Sto	Pass	Pass	Non-metha	0.018
0.5883	0.02866	163	1.1	0.0285	Start / Sto	Pass	Pass	Formaldeh	0
0.5883	0.02866	163	1.1	0.0285	-	Pass	Pass	Manufactu	33.36
0.5883	0.02866	163	1.1	0.0285	-	Pass	Pass	Non-metha	0
0.5883	0.02866	163	1.1	0.0285	Start /m St	Pass	Pass	Non-metha	0.017
-0.2036	0.04731	193	0.34	0.048	Methane r	Fail	Pass	Non-metha	0.013
-0.2036	0.04731	193	0.34	0.048	-	Pass	Pass	Manufactu	26.993
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Non-metha	0.004
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Carbon Mc	0.247
0.0912	0.0351	182	0.456	0.0351	-	Pass	Pass	Combined	286.9
-0.1147	0.03802	159	0.17	0.0389	-	Pass	Pass	Combined	256.2
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Non-metha	0.01
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Formaldeh	0
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	SFTP Comp	0.002
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	SFTP Comp	0.183
-0.3829	0.05032	200	1.2	0.0467	-	Pass	Pass	Nitrogen C	0.032
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Total Hydr	0.024
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Non-metha	0.012
0.2488	0.02815	140	0.8	0.0275	-	Pass	Pass	Non-metha	0
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Manufactu	17.98
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Carbon Mc	8.173
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Manufactu	29.175
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Nitrogen C	0.007
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Carbon dic	277.534
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Manufactu	31.971
0.6542	0.02592	138	0.74	0.0273	-	Pass	Pass	Carbon dic	183.79
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Total Hydr	0.03
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Carbon Mc	0.839
0.8903	0.03841	178	1.4	0.0375	-	Pass	Pass	Carbon Mc	0.185
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Carbon Mc	3.306
1.3503	0.02112	124	1.4	0.0225	-	Pass	Pass	Manufactu	41.17
0.891	0.02577	164	1.23	0.0299	-	Pass	Pass	Manufactu	41.169
0.891	0.02577	164	1.23	0.0299	-	Pass	Pass	Carbon dic	217.789
0.1	0.0331	156	0.5	0.0331	-	Pass	Pass	Particulate	0.001
1.1122	0.02617	153	1.19	0.03	-	Pass	Pass	Non-metha	0.007
-	-	-	-	-	-	Pass	Pass	Total Hydr	0.194
-	-	-	-	-	-	Pass	Pass	Hydrocarb	0.02
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Carbon-Re	415.2
-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Nitrogen C	0.008

-0.6186	0.04845	193	0.34	0.048	-	Pass	Pass	Carbon-Re	245.3
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Non-metha	0.017
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Particulate	0.001
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Manufactu	27.441
1.1021	0.02586	163	0.67	0.0298	-	Pass	Pass	Nitrogen C	0.097
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	CH4 - Metl	0.002
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Carbon Mc	0.019
0.0255	0.02619	124	0.15	0.0278	-	Pass	Pass	Combined	148.2
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Nitrogen C	0.029
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Carbon dic	379.027
1.0034	0.0289	178	1.29	0.0316	-	Pass	Pass	Nitrogen C	0.062
0.3901	0.04654	191	1.189	0.0467	-	Pass	Pass	Manufactu	18.185
0.9805	0.02463	163	1.1	0.0285	Start / Sto	Pass	Pass	Carbon-Re	344.2
0.9805	0.02463	163	1.1	0.0285	-	Pass	Pass	Manufactu	33.493
0.9805	0.02463	163	1.1	0.0285	-	Pass	Pass	SFTP Comp	0.073
1.1	0.0285	163	0.9805	0.02463	Start / Sto	Pass	Pass	Carbon Mc	0.129
1.1	0.0285	163	0.9805	0.02463	Start / Sto	Pass	Pass	Total Hydr	0.022
1.1	0.0285	163	0.9805	0.02463	Start / Sto	Pass	Pass	Carbon-Re	342.2
0.1136	0.0288	127	0.568	0.0288	-	Pass	Pass	Non-metha	0.002
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	Non-metha	0.027
-0.0201	0.04536	193	0.34	0.048	-	Pass	Pass	SFTP Comp	0.032
0.9334	0.02432	138	0.74	0.0273	-	Pass	Pass	Carbon-Re	290.7
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Nitrogen C	0.026
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Manufactu	23.856
0.9793	0.02629	159	1.19	0.03	-	Pass	Pass	Carbon dic	247.463
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Nitrogen C	0.004
1.3913	0.02083	124	1.4	0.0225	-	Pass	Pass	Non-metha	0.004
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Carbon Mc	0.169
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Particulate	0.002
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Total Hydr	0.019
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Combined	244.4
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Carbon dic	190.296
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Carbon-Re	190.4
0.7496	0.0274	148	0.76	0.0294	-	Pass	Not Applic	Manufactu	47.161
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Non-metha	0.022
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Carbon-Re	279.7
-0.1653	0.03362	133	0.553	0.032	-	Pass	Pass	Carbon dic	273.45
-0.0228	0.03338	156	0.5	0.0331	-	Pass	Pass	Combined	229.8
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Total Hydr	0.042
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	Non-metha	0
-0.9361	0.05328	200	1.2	0.0467	-	Pass	Pass	SFTP Comp	0.002
-0.2312	0.04609	193	0.34	0.048	NMOG fail	Pass	Fail	Total Hydr	0.044
-0.2312	0.04609	193	0.34	0.048	NMOG fail	Pass	Fail	CH4 - Metl	0.005
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	Carbon dic	357.861
0.5781	0.02807	164	1.23	0.0299	-	Pass	Pass	SFTP Comp	0.036

Test ResultUnit	Fed InUse Std	CA InUse Std	ResultBag 1	ResultBag 2	ResultBag 3	ResultBag 4	EPA Percent Fed Std	EPA Percent CA Std	Veh Delete Reason
grams per	-	-	288.444	257.246	229.589	-	-	-	-
ne Hydrocarbon + Nitrogen Oxides	-	-	-	-	-	-	6	-	-
grams per alifornia)	0.075	0.04	0.076	0.004	0.002	-	24	45	-
grams per	-	-	377.034	351.458	303.731	-	-	-	-
grams per	0.04	-	0.026	0.019	0.012	-	48	-	-
grams per	-	-	0.098	0.02	0.013	-	-	-	-
grams per	11.1	-	-	-	-	-	1	-	-
grams per atter	0.07	-	-	-	-	-	2	-	-
grams per xhaust Emissions	296.3	-	-	-	-	-	97	-	-
grams per	-	-	-	-	-	-	-	-	-
miles per g	-	-	23.206	24.167	29.037	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.03	0.02	0.047	0.001	0.001	-	34	50	-
grams per	-	-	-	-	-	-	-	-	-
grams per atter	0.07	-	-	-	-	-	8	-	-
grams per alifornia)	0.055	0.01	0.018	0	0.001	-	8	40	-
grams per	-	-	0.017	0	0.001	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.04	0.027	-	-	-	-	5	8	-
grams per	-	-	0.027	0.008	0.002	-	-	-	-
grams per ssions	-	-	999	999	999	-	-	-	-
grams per	0.03	-	0.009	0.001	0.005	-	14	-	-
grams per	2.1	1	0.736	0.07	0.228	-	12	26	-
grams per	-	-	287.705	259.269	233.615	-	-	-	-
grams per xhaust Emissions	424.6	-	-	-	-	-	98	-	-
grams per alifornia)	0.055	0.01	0.035	0.001	0.002	-	17	90	-
grams per	-	-	-	-	-	-	-	-	-
grams per ssions	0.04	0.0267	-	-	-	-	3	4	-
grams per	-	-	999	999	999	-	-	-	-
grams per	-	-	0.144	0.006	0.008	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
alues are for Tier 2 fuel.									
grams per ssions	0.05	0.05	0.057	0.008	0.008	-	36	36	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	0.129	0.023	0.083	-	-	-	-
ne Hydrocarbon + Nitrogen Oxides	-	-	-	-	-	-	10	-	-
grams per alifornia)	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per ssions	-	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-

grams per	0.067	0.067	-	-	-	-	9	9	-
grams per	0.05	0.05	0.123	0.005	0.016	-	64	64	-
miles per g	-	-	-	-	-	-	-	-	
grams per	-	-	-	-	-	-	-	-	
grams per	0.05	0.05	0.117	0.01	0.017	-	68	68	-
grams per	0.2	0.2	-	-	-		3	3	-
miles per g	-	-	-	-	-	-	-	-	
grams per	-	-	-	-	-	-	-	-	
grams per	0.015	0.08	0.003	0	0	-	7	2	-
grams per	-		0	0	0	-	-	-	
grams per	0.07	-	-	-	-		5	-	
grams per	0.067	0.067	-	-	-		30	30	-
grams per	-	-	-	-	-	-	-	-	
grams per	-	-	-	-	-	-	-	-	
grams per	0.04	-	0.021	0.013	0.008	-	33	-	
miles per g	-		26.8	29.3	33.6	-	-	-	
miles per g	-		19.469	19.756	22.934	-	-	-	
grams per	-	-	-	-	-	-	-	-	
grams per	0.85	-	-	-	-		9	-	
grams per	353.1	-	-	-	-		95	-	
grams per	297.1	-	-	-	-		93	-	
grams per	-	-	-	-	-	-	-	-	
grams per	0.03	-	0.014	0.001	0.003	-	14	-	
grams per	-		0.072	0.001	0.001	-	-	-	
grams per	-		297.54	299.671	259.781	-	-	-	
grams per	11.1	-	-	-	-		3	-	
grams per	-	-	-	-	-	-	-	-	
grams per	0.01	0.01	0	0	0	-	0	0	-
grams per	0.07	-	-	-	-		2	-	
grams per	0.01	0.01	0.001	0.001	0.001	-	10	10	-
grams per	-		279.906	267.52	255.137	-	-	-	
grams per	0.85	-	-	-	-		13	-	
grams per	0.04	-	0.042	0.051	0.017	-	100	-	
grams per	0.85	-	-	-	-		28	-	
grams per	-	-	-	-	-	-	-	-	
grams per	0.05	0.05	0.031	0.029	0.017	-	52	52	-
grams per	-	-	-	-	-	-	-	-	
grams per	316.8	-	-	-	-		93	-	
grams per	0.01	0.01	0.001	0.002	0.001	-	20	20	-
grams per	-	-	-	-	-	-	-	-	
grams per	0.067	0.067	-	-	-		26	26	-
grams per	-	-	-	-	-	-	-	-	
grams per	-	-	-	-	-	-	-	-	
grams per	-		0.091	0.019	0.012	-	-	-	
grams per	3.4	1.7	1.116	0.003	0.003	-	7	14	-

grams per	-	-	0.078	0.049	0.023	-	-	-
grams per	-	-	436.539	420.881	350.347	-	-	-
grams per	0.07	-	-	-	-	2	-	-
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	0.021	0	0.001	-	-	-
grams per	0.011	0.004	0.001	0	0	-	0	0
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.02	-	-	-	-	3	-	-
grams per	0.04	0.0267	-	-	-	3	4	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	0.046	0.004	0.001	-	-	-
miles per g	-	-	35.231	39.239	43.534	-	-	-
grams per	-	-	999	999	999	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.05	-	-	-	-	35	-	-
grams per	0.011	0.004	0.001	0	0	-	0	0
grams per	0.03	-	0.008	0.001	0.005	-	14	-
grams per	0.02	-	-	-	-	4	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.2	0.2	-	-	-	7	7	-
grams per	0.015	0.008	0.004	0	0	7	13	-
miles per g	-	-	26.63	25.488	30.863	-	-	-
grams per	297	-	-	-	-	95	-	-
grams per	-	-	-	-	-	-	-	-
miles per g			23.054	23.71	27.677	-	-	-
grams per	11.1	-	-	-	-	1	-	-
grams per	0.07	-	-	-	-	2	-	-
grams per	-	-	395.075	390.657	332.433	-	-	-
grams per	-	-	0.063	0	0.002	-	-	-
grams per	-	-	0.072	0	0.003	-	-	-

ne Hydrocarbon + Nitrogen Oxides

ne Hydrocarbon + Nitrogen Oxides

ss and ORVR

xhaust Emissions

alues are for Tier 2 fuel.

grams per	0.01	0.01	0.002	0	0	-		0	0 -
grams per	11.1	-	-	-	-			1	-
alifornia)									
grams per	0.075	0.04	0.07	0.001	0.011	-		24	45 -
grams per	0.067	0.067	-	-	-			38	38 -
grams per	-	-	-	-	-		-	-	-
miles per g	-	-	-	-	-		-	-	-
ne Hydrocarbon + Nitrogen Oxides									
grams per	0.82	-	-	-	-			2	-
ss and ORVR									
grams per	0.2	0.2	-	-	-			3	3 -
grams per	0.01	0.01	0.005	0.002	0.001	-		20	20 -
miles per g	-		0.005	0.002	0.001	-	-	-	-
xhaust Emissions									
grams per	326.2	-	-	-	-			98	-
grams per	-		374.408	327.663	351.164	-	-	-	-
grams per	-	-	-	-	-		-	-	-
xhaust Emissions									
grams per	296.3	-	-	-	-			94	-
grams per	-		378.8	347.8	303.22	-	-	-	-
ons result = 0.007 g/mi									
grams per	0.03	-	0.016	0.001	0.014	-		24	-
ons result = 0.007 g/mi									
grams per	0.05	0.01	0.037	0.001	0.023	-		13	70 -
ons result = 0.007 g/mi									
grams per			313.386	310.772	265.209	-	-	-	-
grams per	-		0.119	0.001	0.002	-	-	-	-
grams per	0.05	0.05	0.025	0.016	0.014	-		34	34 -
grams per	3.4	2.1	1.391	0.003	0.085	-		10	15 -
miles per g	-	-	-	-	-		-	-	-
grams per	-	-	-	-	-		-	-	-
grams per	-	-	-	-	-		-	-	-
grams per	-		294.141	305.451	258.951	-	-	-	-
miles per g	-		30.364	29.398	34.666	-	-	-	-
grams per	-		0.058	0.001	0.001	-	-	-	-
grams per	3.4	-	0.886	0.004	0.049	-		6	-
grams per	0.015	-	0.002	0	0	-		0	-
grams per	11.1	-	-	-	-			2	-
miles per g	-	-	-	-	-		-	-	-
grams per	-		0.085	0.002	0.016	-	-	-	-
grams per	-		0.067	0.002	0.011	-	-	-	-
grams per	-		438.364	409.725	359.317	-	-	-	-
grams per	0.067	0.067	-	-	-			24	24 -
grams per	-		0.132	0.002	0.007	-	-	-	-
alifornia)									
grams per	0.075	0.04	0.125	0.001	0.004	-		38	70 -
grams per	-	-	-	-	-		-	-	-
miles per g	-	-	-	-	-		-	-	-
grams per	-	-	-	-	-		-	-	-
ssions									
grams per	-		999	999	999	-	-	-	-
miles per g	-	-	-	-	-		-	-	-
grams per	-		0.019	0.007	0.002	-	-	-	-
miles per g	-	-	-	-	-		-	-	-
grams per	11.1	-	-	-	-			1	-

alifornia) grams per -	-	-	-	-	-	-	-	-
grams per	3.4	1.7	2.084	0.006	0.05	-	14	27-
grams per -	-	-	-	-	-	-	-	-
ss and ORVR grams per	0.2	0.2	-	-	-	-	7	7-
grams per	0.015	0.008	0.005	0	0	-	7	13-
grams per -	-		457.6	459.2	389.9	-	-	-
ssions grams per -	-		999	999	999	-	-	-
grams per -	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-	-	6	6-
miles per g-	-		26.85	28.94	33.5	-	-	-
grams per	3.4	1.7	1.05	0.053	0.003	-	8	15-
grams per	0.05	0.05	0.095	0.002	0.015	-	100	100-
grams per	0.015	0.008	0	0	0	-	0	0-
miles per g-	-		26.61	28.58	32.12	-	-	-
alifornia) grams per	0.075	0.04	0.07	0.004	0.002	-	23	43-
ssions grams per -	-		999	999	999	-	-	-
grams per	0.05	0.05	0.094	0.01	0.009	-	54	54-
ne Hydrocarbon + Nitrogen Oxides grams per	0.05	-	-	-	-		19	-
xhaust Emissions grams per	378.1	-	-	-	-		88	-
grams per	0.067	0.067	-	-	-		17	17-
grams per	2.1	1	0.332	0.05	0.154	-	7	14-
miles per g-	-	-	-	-	-	-	-	-
miles per g-	-	-	-	-	-	-	-	-
grams per	0.01	0.01	0.004	0.001	0.002	-	20	20-
atter grams per	0.07	-	-	-	-		6	-
grams per -	-	-	-	-	-	-	-	-
grams per	0.01	0.01	0.001	0.001	0.001	-	10	10-
grams per	0.04	-	0.038	0.048	0.019	-	95	-
grams per	3.4	1.7	0.646	0.004	0.004	-	5	9-
grams per -	-	-	-	-	-	-	-	-
xhaust Emissions grams per	398.2	-	-	-	-		93	-
grams per -	-		0.02	0.001	0.002	-	-	-
miles per g-	-		27.959	28.419	32.986	-	-	-
ssions grams per -	-		999	999	999	-	-	-
xhaust Emissions grams per	282.9	-	-	-	-		93	-
miles per g-	-	-	-	-	-	-	-	-
grams per	3.4	1.7	0.572	0.002	0.053	-	4	8-
grams per -	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-		24	24-
alifornia) grams per -	-	-	-	-	-	-	-	-
grams per -	-	-	-	-	-	-	-	-
ssions grams per -	-		999	999	999	-	-	-
grams per -	-		0.04	0.002	0.006	-	-	-
grams per -	-		0.113	0.001	0.002	-	-	-
grams per	0.65	0.65	-	-	-		58	58-

test without a problem. Results are in the system now. Sometimes it takes an extra test for the car to adapt to the t

grams per	-	-	333.371	352.083	290.701	-	-	-	-
ne Hydrocarbon + Nitrogen Oxides									
grams per	0.65	-	-	-	-		4	-	-
alues are for Tier 2 fuel.									
grams per	0.015	0.008	0.002	0	0	-	7	13	-
ne Hydrocarbon + Nitrogen Oxides									
grams per	0.65	-	-	-	-		5	-	-
alifornia)									
grams per	-	-	-	-	-	-	-	-	
grams per	-	-	-	-	-	-	-	-	
grams per	-	-	-	-	-	-	-	-	
alifornia)									
grams per	-	-	-	-	-	-	-	-	
grams per	-	-	-	-	-	-	-	-	
alifornia)									
grams per	0.075	0.04	0.066	0	0.002	-	19	35	-
ssions									
grams per	-		999	999	999	-	-	-	
ne Hydrocarbon + Nitrogen Oxides									
grams per	0.65	-	-	-	-		5	-	-
grams per	-	-	-	-	-	-	-	-	
grams per	-	-	-	-	-	-	-	-	
miles per g	-	-	-	-	-	-	-	-	
miles per g	-		27.677	29.907	32.817	-	-	-	
grams per	3.4	1.7	1.45	0.248	1.168	-	23	45	-
grams per	-	-	-	-	-	-	-	-	
grams per	0.65	0.65	-	-	-		38	38	-
grams per	-	-	-	-	-	-	-	-	
ssions									
grams per	-		999	999	999	-	-	-	
grams per	-		0.069	0.001	0.015	-	-	-	
grams per	-		510.3	511.763	443.85	-	-	-	
grams per	0.01	0.01	0.008	0.001	0.002	-	27	27	-
alifornia)									
grams per	0.075	0.04	0.121	0.004	0.005	-	38	70	-
miles per g	-		27.071	31.049	28.954	-	-	-	
grams per	-	-	-	-	-	-	-	-	
ons result = 0.007 g/mi									
ons result = 0.007 g/mi									
grams per	0.611	0.004	0.001	0	0.001	-	0	0	-
xhaust Emissions									
grams per	282.9	-	-	-	-		91	-	-
grams per	-	-	-	-	-	-	-	-	
grams per	-		458.629	454.535	391.413	-	-	-	
alifornia)									
grams per	0.075	-	0.06	0.001	0.001	-	18	-	
miles per g	-	-	-	-	-	-	-	-	
xhaust Emissions									
grams per	260.7	-	-	-	-		94	-	-
grams per	0.03	-	0.021	0	0.006	-	20	-	
grams per	-	-	-	-	-	-	-	-	
ssions									
grams per	-	-	-	-	-	-	-	-	
miles per g	-	-	-	-	-	-	-	-	
grams per	3.4	1.7	2.069	0.057	0.139	-	15	30	-
grams per	-		0.12	0.001	0.004	-	-	-	
grams per	0.05	-	0.02	0.005	0.003	-	16	-	
grams per	0.015	-	0.002	0	0	-	0	-	
grams per	-	-	-	-	-	-	-	-	
miles per g	-		33.04	36.37	39.42	-	-	-	

grams per	-	-	0.222	0.026	0.076	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
ne Hydrocarbon + Nitrogen Oxides	0.65	-	-	-	-		17	-	-
grams per	-	-	-	-	-	-	-	-	-
alifornia)	-	-	-	-	-	-	-	-	-
grams per	0.05	0.05	0.051	0	0.004	-		24	24 -
grams per	-	-	0.038	0.004	0.012	-	-	-	-
grams per	0.01	0.01	0.001	0.002	0.001	-		10	10 -
grams per	0.015	0.008	0.065	0	0	-		7	13 -
grams per	0.07	-	-	-	-			5	-
ne Hydrocarbon + Nitrogen Oxides	0.55	-	-	-	-			5	-
grams per	-	-	-	-	-	-	-	-	-
xhaust Emissions	391.4	-	-	-	-			95	-
alifornia)	0.075	0.04	0.052	0.001	0.012	-		20	38 -
grams per	-	-	-	-	-	-	-	-	-
grams per	0.04	-	0.022	0.011	0.01	-		33	-
grams per	0.05	0.05	0.103	0.022	0.036	-		86	86 -
grams per	0.015	0.008	0	0	0	-		0	0 -
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
alifornia)	-	-	-	-	-	-	-	-	-
grams per	0.04	-	0.024	0.017	0.011	-		43	-
grams per	-	-	0.035	0.008	0.003	-	-	-	-
grams per	11.1	-	-	-	-			1	-
grams per	-	-	999	999	999	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.03	0.02	0.021	0.007	0.006	-		34	50 -
grams per	293.7	-	999	999	999	-		88	-
grams per	0.03	-	0.006	0	0.002	-		7	-
miles per g	-	-	28.778	28.915	33.497	-	-	-	-
grams per	2.1	1	0.407	0.001	0.082	-		6	11 -
miles per g	-	-	-	-	-	-	-	-	-
grams per	11.1	-	-	-	-			4	-
grams per	0.05	0.05	0.134	0.005	0.013	-		68	68 -
grams per	19.3	-	-	-	-			1	-
grams per	-	-	317.473	313.447	269.768	-	-	-	-
grams per	0.03	0.02	0.02	0.005	0.005	-		27	40 -
grams per	0.055	0.01	0.021	0.001	0.002	-		10	50 -
grams per	0.65	0.35	-	-	-			38	70 -
grams per	0.05	0.05	0.103	0.014	0.028	-		72	72 -
grams per	0.01	0.01	0	0.001	0.001	-		10	10 -
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	11.1	-	-	-	-			5	-
xhaust Emissions	265.1	-	-	-	-			89	-

t. Evap only

test without a problem. Results are in the system too. Sometimes it takes an extra test for the car to adapt to the t
atter

grams per	11.1 -	-	-	-	-		34 -	-
alifornia) grams per -	-	-	-	-	-	-	-	-
ssions grams per -	-		999	999	999 -	-	-	-
grams per -	-	-	-	-	-	-	-	-
ssions are for Tier 2 fuel. grams per -			999	999	999 -	-	-	-
miles per g-	-	-	-	-	-	-	-	-
grams per -	-	-	-	-	-	-	-	-
grams per	3.4	1.7	0.322	0.002	0.004 -		3	5 -
miles per g-	-	-	-	-	-	-	-	-
xhaust Emissions grams per	254.1 -	-	-	-	-		93 -	-
xhaust Emissions grams per	391.6 -	-	-	-	-		95 -	-
grams per	0.03 -		0.01	0	0.002 -		10 -	-
grams per -	-	-	-	-	-	-	-	-
miles per g-	-		23.177	23.308	28.478 -	-	-	-
grams per	0.03 -		0.014	0.001	0.006 -		17 -	-
grams per	0.015	0.008	0.002	0	0 -		7	13 -
ssions grams per -	-	-	-	-	-	-	-	-
miles per g-	-		38.34	83.67	47.08	78.84 -	-	-
grams per	0.01	0.01	0.001	0.001	0.001	0.002	10	10 -
grams per	0.011	0.004	0.001	0	0	0	0	0 -
ssions grams per -	-		999	999	999	999 -	-	-
grams per -	-	-	-	-	-	-	-	-
grams per	0.04	0.027 -	-	-	-		0	0 -
grams per	0.03 -		0.014	0	0.006 -		17 -	-
alifornia) grams per	0.075	0.04	0.071	0.001	0.015 -		27	50 -
t - Evap only grams per	0.2	0.2 -	-	-	-		4	4 -
grams per	0.03 -		0.027	0	0.002 -		20 -	-
grams per	3.4	1.7	0.796	0.004	0.008 -		5	10 -
grams per -	-	-	-	-	-	-	-	-
grams per -	-	-	-	-	-	-	-	-
grams per -	-		0.037	0.005	0.002 -	-	-	-
om result = 0.007 g/mi grams per	0.03	0.02	0.019	0.006	0.005 -		27	40 -
om result = 0.007 g/mi grams per	2.1	1	1.229	0.064	1.639 -		36	74 -
alifornia) grams per -	-	-	-	-	-	-	-	-
grams per -	-	-	-	-	-	-	-	-
grams per	0.03 -		0.011	0.001	0.003 -		14 -	-
ne Hydrocarbon + Nitrogen Oxides grams per	0.65 -	-	-	-	-		4 -	-
grams per	11.1 -	-	-	-	-		17 -	-
grams per -	-	-	-	-	-	-	-	-
alifornia) grams per -	-	-	-	-	-	-	-	-
grams per	0.65	0.65 -	-	-	-		42	42 -
grams per	11.1 -	-	-	-	-		15 -	-
ssions grams per -	-	-	-	-	-	-	-	-
miles per g-	-	-	-	-	-	-	-	-
grams per -	-		331.1	344.969	285.642 -	-	-	-

ssions									
grams per	-		999	999	999	-	-	-	-
grams per	0.05	0.05	0.036	0	0.002	-		16	16 -
grams per	0.03	-	0.013	0.001	0.003	-		14	-
ssions									
grams per	-		999	999	999	-	-	-	-
miles per g	-		30.048	29.964	34.545	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.05	0.05	0.051	0	0.025	-		34	34 -
grams per	0.2	-	0.164	0.024	0.077	-		34	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-		486.014	482.512	384.017	-	-	-	-
miles per g	-		20.895	21.081	26.493	-	-	-	-
grams per	3.4	1.7	0.494	0.005	0.004	-		4	7 -
grams per	-	-	-	-	-	-	-	-	-
xhaust Emissions	398.5	-	-	-	-			92	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.05	0.05	0.054	0.039	0.019	-		60	60 -
test without a problem. Results are in the system too. Sometimes it takes an extra test for the car to adapt to the t									
test without a problem. Results are in the system too. Sometimes it takes an extra test for the car to adapt to the t									
grams per	-		449.456	449.597	388.098	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-			14	14 -
grams per	-		0.151	0.002	0.003	-	-	-	-
grams per	3.4	1.7	0.976	0.625	0.944	-		24	47 -
grams per	-		0.058	0.001	0.016	-	-	-	-
grams per	11.1	-	-	-	-			17	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-		0.028	0.002	0.001	-	-	-	-
aliforniа)									
grams per	0.075	0.04	0.028	0.002	0.001	-		10	18 -
grams per	0.01	0.01	0.001	0.001	0.002	-		10	10 -
ne Hydrocarbon + Nitrogen Oxides									
grams per	0.05	-	-	-	-			9	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-			2	2 -
ssions									
grams per	-	-	-	-	-	-	-	-	-
miles per g	-		25.9	25.439	29.457	-	-	-	-
grams per	0.04	0.027	-	-	-			5	8 -
grams per	-		0.022	0	0.002	-	-	-	-
aliforniа)									
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-		0.06	0.05	0.018	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
ssions									
grams per	398.2	-	-	-	-			65	-
grams per	11.1	-	-	-	-			4	-
ss and ORVR									
grams per	0.2	0.2	-	-	-			6	6 -
grams per	11.1	-	-	-	-			1	-
atter									
grams per	0.07	-	-	-	-			3	-

xhaust Emissions	grams per	250.8	-	-	-	-	88	-
	grams per	-	-	-	-	-	-	-
	grams per	-	-	-	-	-	-	-
	miles per g	-		24.547	25.48	28.187	-	-
	grams per	0.05	0.05	0.055	0.003	0	26	26
alifornia)	grams per	0.075	0.04	0.118	0.001	0.002	35	65
ne, Hydrocarbon + Nitrogen Oxides	grams per	0.85	-	-	-	-	6	-
alifornia)	miles per g	-	-	-	-	-	-	-
	grams per	0.075	0.04	0.135	0.003	0.005	42	78
	grams per	-	-	-	-	-	-	-
	grams per	0.067	0.067	-	-	-	3	3
	grams per	0.65	0.65	-	-	-	26	26
ss and ORVR	grams per	0.2	0.2	-	-	-	4	4
	grams per	11.1	-	-	-	-	7	-
	grams per	-	-	-	-	-	-	-
xhaust Emissions	grams per	317.1	-	-	-	-	95	-
alifornia)	grams per	0.075	0.04	0.042	0.004	0.009	18	33
	grams per	-		0.042	0.004	0.009	-	-
	grams per	0.2	-	0.101	0.022	0.085	28	-
	miles per g	-		35.123	37.268	40.278	-	-
	grams per	-	-	-	-	-	-	-
	grams per	3.4	1.7	0.829	0.476	0.401	16	32
	grams per	11.1	-	-	-	-	10	-
	grams per	-	-	-	-	-	-	-
xhaust Emissions	grams per	325.6	-	-	-	-	96	-
	grams per	0.04	-	0.037	0.043	0.018	88	-
	grams per	3.4	1.7	0.965	0.006	0.003	7	13
	grams per	-	-	-	-	-	-	-
xhaust Emissions	grams per	378.1	-	-	-	-	90	-
	grams per	-	-	-	-	-	-	-
	grams per	-		0.079	0.002	0.015	-	-
	grams per	-		319.968	298.059	270.107	-	-
alifornia)	grams per	-	-	-	-	-	-	-
xhaust Emissions	grams per	276.1	-	-	-	-	93	-
	grams per	-		0.019	0.001	0.001	0.001	-
	grams per	-	-	-	-	-	-	-
ssions	grams per	-	-	-	-	-	-	-
	grams per	3.4	1.7	1.439	0.597	1.277	-	29
	grams per	0.067	0.067	-	-	-	27	27
	grams per	3.4	1.7	2.513	0.029	0.186	-	18
	grams per	0.05	0.05	0.065	0.024	0.025	-	66
	grams per	0.01	0.01	0	0	0	-	0
	grams per	-		0.048	0.004	0.022	-	-
alifornia)	grams per	0.075	0.04	0.048	0.004	0.022	-	24
	grams per	0.05	0.05	0.126	0.008	0.042	-	82

grams per	11.1	-	-	-	-	-		1	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.075	0.04	0.037	0.005	0.002	-		15	28
grams per	0.05	0.05	0.12	0.015	0.03	-		84	84
grams per	0.01	0.01	0.001	0.012	0.001	-		70	70
grams per	-	-	0.049	0.002	0.033	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-		999	999	999	-	-	-	-
grams per	0.03	-	0.014	0	0	-		10	-
grams per	-		0.131	0.001	0.002	-	-	-	-
grams per	-		0.067	0.002	0.004	-	-	-	-
miles per g	-		20.343	21.903	24.945	-	-	-	-
grams per	0.075	0.04	0.069	0.002	0.011	-		24	45
grams per	-	-	-	-	-	-	-	-	-
grams per	0.05	-	-	-	-			4	-
grams per	0.067	0.067	-	-	-			2	2
grams per	-	-	-	-	-	-	-	-	-
grams per	0.075	-	0.075	0.001	0.001	-		22	-
grams per	0.05	-	-	-	-			5	-
grams per	-		306.196	279.704	257.89	-	-	-	-
grams per	0.075	0.04	0.038	0.004	0.012	-		18	33
grams per	-	-	-	-	-	-	-	-	-
grams per	11.1	-	-	-	-			1	-
grams per	-	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-			5	5
grams per	-	-	-	-	-	-	-	-	-
grams per	0.05	0.05	0.126	0.007	0.01	-		64	64
grams per	-		999	999	999	-	-	-	-
grams per	-	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-			39	39
grams per	-	-	999	999	999			-	-
grams per	1.15	1.15	-	-	-			3	3
grams per	0.05	0.05	0.047	0.008	0.012	-		34	34
grams per	0.03	-	0.01	0	0.005	-		10	-
miles per g	-	-	-	-	-	-	-	-	-
grams per	-		0.046	0.012	0.009	-	-	-	-
grams per	11.1	-	-	-	-			1	-
miles per g	-	-	-	-	-	-		-	-
grams per	0.007	-	-	-	-			29	-
grams per	250.8	-	-	-	-			87	-
grams per	0.05	0.05	0.099	0.001	0.018	-		52	52
grams per	0.01	0.01	0.001	0.001	0.001	-		10	10
grams per	0.04	-	0.05	0.047	0.023	-		103	-

aliforniа)

= 0.007 g/mi

ssions

ssions

aliforniа)

ne Hydrocarbon + Nitrogen Oxides

aliforniа)

ne Hydrocarbon + Nitrogen Oxides

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t - Evap only

atter

xhaust Emissions

tion without a problem. Results are in the system too. Sometimes it takes an extra test for the car to adapt to the t

grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.03	-	0.005	0	0.001	-	4	-
grams per	-	-	346.129	352.921	304.601	-	-	-
ne Hydrocarbon + Nitrogen Oxides								
grams per	0.52	-	-	-	-		6	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	20.805	21.437	25.757	-	-	-
grams per	-	-	487.871	474.491	394.985	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	0.028	0.002	0.006	-	-	-
grams per	0.01	0.01	0.006	0.002	0.002	-	30	30
grams per	0.011	0.004	0.001	0	0	-	0	0
grams per	-	-	-	-	-	-	-	-
alifornia)								
grams per	-	-	-	-	-	-	-	-
grams per	0.04	-	0.025	0.012	0.01	-	35	-
alifornia)								
grams per	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-		59	59
grams per	-	-	-	-	-	-	-	-
grams per	0.01	0.01	0.004	0.002	0.002	-	20	20
miles per g	-	-	30.924	31.079	36.267	-	-	-
grams per	0.07	-	-	-	-		9	-
grams per	0.015	0.08	0.003	0	0	-	7	2
grams per	0.07	-	-	-	-		9	-
xhaust Emissions								
grams per	338.8	-	-	-	-		90	-
miles per g	-	-	-	-	-	-	-	-
grams per	3.4	1.7	2.149	0.14	0.148	-	17	33
grams per	-	-	0.13	0.003	0.005	-	-	-
grams per	-	-	-	-	-	-	-	-
alues are for Tier 2 fuel.								
grams per			0.069	0	0.008	-	-	-
alues are for Tier 2 fuel.								
grams per	0.05		0.013	0	0.003	-	14	-
alues are for Tier 2 fuel.								
grams per			0.08	0	0.011	-	-	-
alues are for Tier 2 fuel.								
grams per			387.083	377.739	323.096	-	-	-
alifornia) for Tier 2 fuel.								
grams per	0.079	0.04	0.072	0	0.008	-	23	43
grams per	-		288.792	272.952	252.361	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-		8	8
grams per	0.05	0.05	0.053	0.009	0.008	-	36	36
miles per g	-		22.47	22.77	26.75	-	-	-
grams per	-		437.254	436.398	357.246	-	-	-
grams per	-		0.079	0.045	0.018	-	-	-
grams per	0.07	-	-	-	-		2	-
ne Hydrocarbon + Nitrogen Oxides								
grams per	0.65	-	-	-	-		19	-
grams per	-		999	999	999	-	-	-

grams per	-	-	-	-	-	-	-	-
grams per	-		231.63	106.48	189.19	112.93	-	-
grams per	0.03	0.02	0.023	0	0.004	0.001	20	30
grams per	0.055	0.01	0.02	0.001	0.001	0.001	10	50
grams per	-	-	-	-	-	-	-	-
grams per	0.65	0.35	-	-	-		12	23
grams per	0.015	0.008	0.002	0	0	-	7	13
grams per	11.1	-	-	-	-		10	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-		0.116	0.003	0.005	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per			999	999	999	-	-	-
grams per	0.52	-	-	-	-		4	-
miles per g	-	-	-	-	-	-	-	-
grams per	0.015	0.08	0.004	0	0	-	7	2
grams per	16.9	-	-	-	-		14	-
grams per	0.05	-		0.009	0.004	0.003	-	10
grams per	0.067	-	-	-	-		2	-
grams per	-	-	-	-	-	-	-	-
grams per	0.01	0.01	0.01	0.003	0.004	-	50	50
grams per	0.015	0.008	0.002	0	0	-	7	13
grams per	3.4	1.7	1.781	0.164	0.393	-	17	34
miles per g	-	-	-	-	-	-	-	-
grams per	0.01	0.01	0	0.001	0.001	-	10	10
miles per g	-	-	-	-	-	-	-	-
grams per	0.07	-	-	-	-		5	-
grams per	3.4	1.7	0.666	0.002	0.003	-	5	9
grams per	-	-	-	-	-	-	-	-
grams per	11.1	-	-	-	-		1	-
grams per	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-		26	26
grams per	-		0.119	0.024	0.105	-	-	-
grams per	0.075	0.04	0.019	0.007	0.002	-	11	20
miles per g	-	-	-	-	-	-	-	-
grams per	0.01	0.01	0.014	0.001	0.002	-	40	40
miles per g	-	-	19.656	19.822	22.954	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.03	-		0.017	0	0.001	-	14
miles per g	-		19.34	19.41	22.85	-	-	-
grams per	-		0.165	0.002	0.004	-	-	-
grams per	-		0.05	0.001	0.012	-	-	-
miles per g	-		23.525	24.247	27.993	-	-	-

result = 0.007 g/mi

ne Hydrocarbon + Nitrogen Oxides

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miles per g	-	-	-	-	-	-	-	-
grams per	3.4	1.7	0.367	0.004	0.05	-	3	6
miles per g	-		35.19	39.55	44.3	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.01	0.01	0	0	0	-	0	0
grams per	3.4	1.7	1.078	0.003	0.005	-	7	14
grams per	-	-	-	-	-	-	-	-
grams per	0.055	0.01	0.018	0.001	0.001	-	8	40
grams per	0.01	0.01	0.005	0.001	0.001	-	20	20
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.011	0.004	0.001	0	0	-	0	0
grams per	-		311.89	311.127	268.432	-	-	-
grams per	0.62	-	-	-	-		5	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.65	-	-	-	-		4	-
miles per g	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-		0.034	0.001	0.002	-	-	-
grams per	3.4	1	0.523	0.05	0.219	-	6	20
grams per	0.03	-	0.021	0.001	0.003	-	20	-
grams per	-		361.85	351.725	317.768	-	-	-
grams per	0.01	0.01	0.006	0.001	0.002	-	20	20
grams per	0.67	0.67	-	-	-		1	1
grams per	0.03	-	0.016	0.003	0.004	-	20	-
grams per	0.05	0.05	0.039	0.002	0.007	-	22	22
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	3.4	1.7	1.384	0.637	0.842	-	25	50
grams per	0.067	0.067	-	-	-		8	8
grams per	0.05	0.05	0.09	0	0.002	-	38	38
miles per g	-	-	-	-	-	-	-	-
grams per	0.067	0.067	-	-	-		0	0
grams per	0.015	0.008	0.002	0	0	-	0	0
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.075	0.04	0.047	0.008	0.002	-	19	35
grams per	-		0.047	0.008	0.002	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	11.1	-	-	-	-		8	-

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aliforniа)

ne Hydrocarbon + Nitrogen Oxides

ne Hydrocarbon + Nitrogen Oxides

alues are for Tier 2 fuel.

ssions

aliforniа)

ne Hydrocarbon + Nitrogen Oxides								
grams per	0.65	-	-	-	-	-	9	-
grams per	2.1	1	0.477	0.011	0.058	0.058	7	14
grams per	-		0.023	0.001	0.003	0.002	-	-
miles per g	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-		0.08	0.001	0.02	-	-	-
ne Hydrocarbon + Nitrogen Oxides								
grams per	0.65	-	-	-	-		8	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
t. Evap only								
grams per	0.65	0.65	-	-	-		42	42
grams per	-		999	999	999	-	-	-
grams per	-		0.14	0.003	0.007	-	-	-
grams per	0.04	-	0.021	0.014	0.068	-	75	-
grams per	-		0.067	0.017	0.081	-	-	-
grams per	-		0	0	0	-	-	-
ern result = 0.007 g/mi			28.246	28.664	33.264	-	-	-
miles per g	-	-	-	-	-	-	-	-
grams per	11.1	-	-	-	-		3	-
grams per	0.04	0.027	-	-	-		3	4
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-		999	999	999	-	-	-
es and ORVR								
grams per	0.2	0.2	-	-	-		19	19
grams per	-	-	-	-	-	-	-	-
grams per	0.015	0.008	0.004	0	0	-	7	13
miles per g	-		26.618	25.824	31.17	-	-	-
grams per	0.067	-	-	-	-		2	-
grams per	-		0.081	0.005	0.009	-	-	-
miles per g	-	-	-	-	-	-	-	-
xhaust Emissions								
grams per	246.8	-	-	-	-		94	-
miles per g	-		36.283	38.024	39.829	-	-	-
grams per	0.2	-	0.094	0.023	0.108	-	31	-
grams per	3.4	1.7	0.102	0.003	0.005	-	1	2
grams per	-	-	-	-	-	-	-	-
grams per	0.07	-	-	-	-		0	-
grams per	0.075	0.04	0.168	0.002	0.005	-	55	103
grams per	-		0.181	0.002	0.005	-	-	-
grams per	16.9	-	-	-	-		25	-
grams per	-	-	-	-	-	-	-	-
grams per	-		999	999	999	-	-	-
grams per	0.075	0.04	0.157	0.002	0.003	-	46	85

test without a problem. Results are in the system too. Sometimes it takes an extra test for the car to adapt to the t

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grams per	3.4	1.7	1.623	0.003	0.019	-	11	21	-
grams per	0.01	0.01	0.004	0.002	0.002	-	20	20	-
grams per	0.015	0.008	0.003	0	0.001	-	7	13	-
grams per	-	-	-	-	-	-	-	-	
grams per	-	-	-	-	-	-	-	-	
grams per	-	-	-	-	-	-	-	-	
grams per	-		0.076	0.004	0.002	-	-	-	
grams per	0.015	0.008	0	0	0	-	0	0	-
miles per g	-	-	-	-	-	-	-	-	
grams per	-	-	-	-	-	-	-	-	
grams per	-		0.07	0.004	0.002	-	-	-	
grams per	0.075	0.04	0.035	0.008	0.003	-	18	33	-
miles per g	-	-	-	-	-	-	-	-	
grams per	-		0.017	0	0.001	-	-	-	
grams per	11.1	-	-	-	-		3	-	
grams per	299.2	-	-	-	-		96	-	
grams per	293.7	-	-	-	-		88	-	
grams per	0.075	0.04	0.027	0.008	0.002	-	14	25	-
grams per	0.015	0.008	0	0	0	-	0	0	-
grams per	0.07	-	-	-	-		3	-	
grams per	1.41	-	-	-	-		13	-	
grams per	0.067	0.067	-	-	-		48	48	-
grams per	-		0.068	0.014	0.01	-	-	-	
grams per	0.075	0.04	0.046	0.004	0.001	-	16	30	-
grams per	-	-	-	-	-	-	-	-	
miles per g	-	-	-	-	-	-	-	-	
grams per	11.1	-	-	-	-		74	-	
miles per g	-	-	-	-	-	-	-	-	
grams per	0.03	0.02	0.019	0.005	0.003	-	24	35	-
grams per	-		289.434	288.856	247.244	-	-	-	
miles per g	-	-	-	-	-	-	-	-	
grams per	-	-	-	-	-	-	-	-	
grams per	-		0.132	0.002	0.005	-	-	-	
grams per	3.4	1.7	2.259	0.447	0.51	-	25	50	-
grams per	-	-	-	-	-	-	-	-	
grams per	11.1	-	-	-	-		30	-	
miles per g	-	-	-	-	-	-	-	-	
miles per g	-	-	-	-	-	-	-	-	
grams per	-	-	-	-	-	-	-	-	
grams per	0.01	0.01	0.001	0.001	0.001	-	10	10	-
grams per	-	-	-	-	-	-	-	-	
grams per	0.65	0.65	-	-	-		30	30	-
grams per	0.2	0.2	-	-	-		10	10	-
grams per	-		999	999	999	-	-	-	
grams per	0.067	0.067	-	-	-		12	12	-

xhaust Emissions
xhaust Emissions
ne Hydrocarbon + Nitrogen Oxides
ss and ORVR

ssions grams per	-	-	-	-	-	-	-	-
grams per	-		0.067	0.001	0.01	-	-	-
grams per	0.01	0.01	0.005	0	0.001	-	10	10
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	0.03	-	0.005	0.001	0.002	0.001	7	-
grams per	11.1	-	-	-	-		1	-
xhaust Emissions grams per	161	-	-	-	-		93	-
grams per	0.05	0.05	0.083	0.007	0.03	-	58	58
grams per	-		400.584	392.726	336.797	-	-	-
grams per	-	-	-	-	-	-	-	-
miles per g	-		17.447	17.545	20.217	-	-	-
ssions grams per	-		999	999	999	-	-	-
miles per g	-	-	-	-	-	-	-	-
ne Hydrocarbon + Nitrogen Oxides grams per	0.05	-	-	-	-		12	-
grams per	3.4	1.7	0.609	0.004	0.003	-	4	8
grams per	-		0.056	0.016	0.009	-	-	-
ssions grams per	-		999	999	999	-	-	-
grams per	-	-	-	-	-	-	-	-
alifornia) grams per	0.075	0.04	0.124	0.001	0.002	-	36	68
ne Hydrocarbon + Nitrogen Oxides grams per	0.05	-	-	-	-		4	-
ssions grams per	-		999	999	999	-	-	-
grams per	0.05	0.05	0.046	0.021	0.019	-	52	52
miles per g	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
grams per	-	-	-	-	-	-	-	-
alifornia) grams per	-	-	-	-	-	-	-	-
grams per	3.4	-	0.665	0.007	0.1	-	5	-
grams per	0.01	-	0.004	0.001	0.001	-	20	-
grams per	-		0.083	0.002	0.004	-	-	-
xhaust Emissions grams per	268.4	-	-	-	-		92	-
grams per	-	-	-	-	-	-	-	-
ssions grams per	-	-	-	-	-	-	-	-
miles per g	-	-	-	-	-	-	-	-
alifornia) grams per	0.075	0.04	0.081	0.005	0.009	-	30	55
ssions grams per	-		999	999	999	-	-	-
grams per	-	-	-	-	-	-	-	-
xhaust Emissions grams per	254.1	-	-	-	-		91	-
grams per	-		0.055	0.051	0.017	-	-	-
grams per	-	-	-	-	-	-	-	-
atter grams per	0.07	-	-	-	-		3	-
grams per	-		0.02	0.002	0.004	-	-	-
test without a problem. Results are in the system too. Sometimes it takes an extra test for the car to adapt to the t								
test without a problem. Results are in the system too. Sometimes it takes an extra test for the car to adapt to the t grams per	0.05	-	0.022	0	0.001	-	17	-
grams per	-		379.997	369.371	319.252	-	-	-
ne Hydrocarbon + Nitrogen Oxides grams per	0.05	-	-	-	-		6	-

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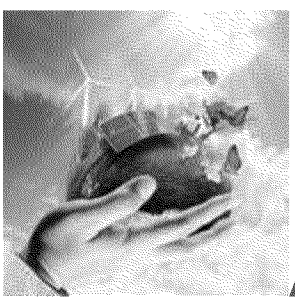
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To: McCabe, Janet[McCabe.Janet@epa.gov]; Grundler, Christopher[grundler.christopher@epa.gov]; Shinkman, Susan[Shinkman.Susan@epa.gov]; Brooks, Phillip[Brooks.Phillip@epa.gov]; Belser, Evan[Belser.Evan@epa.gov]
From: Giles-AA, Cynthia
Sent: Tue 1/26/2016 5:07:51 PM
Subject: FW: Air & Radiation Law News for January 26, 2016

See VW clip. Progress.

Sent from my Windows Phone

From: Turley, Jennifer
Sent: 1/26/2016 12:03 PM
To: Allnutt, David; Anderson, Lea; Anderson, Steve; Aranda, Amber; Averback, Jonathan; Belser, Evan; Bianco, Karen; Bogoshian, Matthew; Branning, Amy; Bunker, Byron; Chapman, Apple; Choi, Jake; Cozad, David; Crum, Lynda; Crystal, Roy; Davis, Julian; Dickinson, David; Dierker, Carl; Dolph, Becky; Doster, Brian; Dubey, Susmita; Dubois, Roland; Frey, Bert; Froikin, Sara; Giles-AA, Cynthia; Graham, Cheryl; Harrison, Ben; Hoffman, Howard; Hogan, Stephanie; Holmes, Carol; Igoe, Sheila; Jordan, Scott; Kaplan, Robert; Kataoka, Mark; Klepp, Robert; Knapp, Kristien; Lee, Michael; Lovett, Lauren; Mackey, Cyndy; Manners, Mary; Marks, Matthew; Matthews, Julie; McConkey, Diane; Mclean, Kevin; Moore, Bruce; Morgan, Jeanette; Muller, Sheldon; Niebling, William; Nguyen, Quoc; Adair, Jocelyn; Odendahl, Steve; Okoye, Winifred; Orlin, David; Pastorkovich, Anne-Marie; Roberts, Martha; Rodman, Sonja; Rowland, John; Schaaf, Eric; Schmidt, Lorie; Senn, John; Shenkman, Ethan; Silverman, Steven; Smith, Kristi; Snyder, Doug; Srinivasan, Gautam; Stahle, Susan; Starfield, Lawrence; Stern, Allyn; Tate, Ragan; Thrift, Mike; Tierney, Jan; Ting, Kaytrue; Tsirigotis, Peter; Versace, Paul; Vetter, Rick; Walker, Mike; Ward, W. Robert; Werner, Jacqueline; Wilcox, Geoffrey; Williams, Brent; Williams, Melina; Williamson, Timothy; Zenick, Elliott; Wills, Jennifer; Conger, Nick; Blake, Wendy; Schramm, Daniel; Vergeront, Julie; Tozzi, Lauren; Coursen, David; Pilchen, Zach; Skinner-Thompson, Jonathan; Vijayan, Abi; Roder, Aileen; Walker, Denise; Caballero, Kathryn; Thompson, Christopher; Williams, Christopher; Matthew, Dayna; Reid, Lauren; Hammons, Jeffrey; Morris, Rachel; Nguyen, DucH; Jordan, Deborah; Charlton, Tom; Kulschinsky, Edward; Portmess, Jessica; Kaminer, Joan; Kryman, Matthew; Greenglass, Nora; Spina, Providence; Firestine, Natalie; Bond, Alexander; Palmer, Karen; Seidman, Emily; Conrad, Daniel
Subject: Air & Radiation Law News for January 26, 2016



Air & Radiation Law News

for January 26, 2016

Bloomberg BNA Daily Environment Report™

Air Pollution

EPA Allows New Particulate Monitoring Method

The Environmental Protection Agency designated a new federal equivalent method for measuring particulate matter concentrations in the air. The agency, in a notice scheduled for publication Jan. 26, approved an automated monitoring method...

Air Pollution

Industry Coalition to Defend Against Stronger Ozone Rule

A coalition of 14 industry associations wants to intervene in support of the Environmental Protection Agency in litigation brought by environmental groups who want even stronger national ozone standards (Murray Energy Corp. v. EPA, D.C....

Air Pollution

Utilities Must Contain Odors, Emissions From Gas Leak

A South Coast Air Quality Management District hearing board ordered Southern California Gas Co. to take steps to contain odors and air pollution resulting from the massive natural gas leak at its underground storage field near Los Angeles....

Air Pollution

Volkswagen CEO Calls for Revised Emissions Tests

Volkswagen AG Chief Executive Officer Matthias Mueller called for emissions tests in Europe to be reworked to close the gap between laboratory and real-world results, an issue brought to public attention by the German car manufacturer's...

Climate Change

Fossil Fuel Industry's Climate Disclosures in Focus

Two London-based nonprofits have prepared a guide to fossil fuel-company reporting on the financial risks of climate change....

Climate Regulation

Murray Seeks Week Delay in Job Impacts Case

Murray Energy Corp. has asked a federal judge to push back the start of a trial in a lawsuit on the impact of Clean Air Act regulations on jobs by a week so the company's founder, Robert Murray, can attend the Republican National Convention...

Climate Regulation

Reliability, Trading Options Favored in Federal Climate Plan

The Environmental Protection Agency should accept comments on any federal plan imposed on states in order to implement carbon dioxide standards for power plants and take steps to ensure any federal plan would not jeopardize the reliability...

Climate Science

Record Warmth 'Almost Certainly' Due to Humans, Scientists Say

The odds are "vanishingly small" that recent years of record warmth aren't due to human emissions of greenhouse gases, researchers in the U.S. and Germany said, adding to pressure on world governments to cut back on fossil fuel...

Congress

Lobbyists Swarm Congress Over Carbon Rules Resolutions

Despite the low odds of gaining enough votes to block President Barack Obama's signature environmental regulations, more than 40 groups reported lobbying Congress during the fourth quarter of

2015 on the Congressional Review Act resolutions...

Congress

Maryam Brown: Meet Speaker Paul Ryan's Top Energy Adviser

House Speaker Paul Ryan's new energy adviser is Maryam Brown. A Hill veteran with long ties to K Street, Brown joined Ryan's team after spending three years with former House Speaker John Boehner, who resigned in October....

Energy

Blizzard Delays Action on Energy Bill

The Senate is scheduled to begin debate on what could be the first major new energy bill in nearly 10 years on Jan. 27, after a blizzard that dumped two feet of snow on Washington delayed congressional action. Consideration of the legislation...

Energy

U.S. Supreme Court Upholds FERC's Demand Response Program

The U.S. Supreme Court ruled 6-2 that the Federal Energy Regulatory Commission has authority to run its demand response energy conservation program in the wholesale energy markets (FERC v. Elec. Power Supply Assoc., U.S., No. 14-840, 1/25/16)....

Enforcement

DOJ Won't Seek 'Preordained Stories' in New Enforcement Push

Countering speculation from former staffers, the Department of Justice won't make a special effort to find worker safety violations to make highly technical environmental criminal cases more emotionally powerful to juries, a high-ranking...

Nuclear Waste

N.M., DOE Finalize Accord on Nuclear Waste

Two settlement agreements have been signed to resolve the state of New Mexico Environment Department's claims against the Department of Energy and its contractors related to February 2014 incidents at two New Mexico facilities (N.M....

Oil & Gas

Top Colorado Regulator Favors Tankless Drill Sites

A top state regulator in Colorado said "tankless" oil and gas facilities would minimize the effects of large drilling operations in Colorado's urban areas....

Pipeline Safety

Pipeline Reauthorization Lobbying Spikes in Last Quarter

The number of organizations who paid to lobby on pipeline safety reauthorization increased 140 percent in the final quarter of 2015 from lobbying during July through September of the same year, as the law expired and Congress began acting....

Regulatory Policy

Draft Issued on Redrawing Utah Public Lands Map

Two congressmen from Utah have released a discussion draft of a plan for revising management of public lands in eastern Utah to designate areas for possible commercial use, wildlife habitat and other purposes....

Renewable Energy

Greenhouse Gases Can be Cut Without Rate Hikes: Study

Cutting global-warming pollution in the U.S. may not be so costly after all....

Renewable Energy

New Funding for Manitoba Biomass Fuel Development

Canada and Manitoba are providing up to C$500,000 ($343,695) for 12 projects to increase the use and development of biomass fuels in Manitoba, Federal Agriculture Minister Lawrence MacAulay and Manitoba Agriculture, Food and Rural Development...

Supreme Court Denies Review of Energy Rates Case

The U.S. Supreme Court declined to review Jan. 25 a petition arguing that an Iowa power utility must pay two windmill owners higher rates than what it pays to purchase electricity from other generators (Swecker v. Midland Power Coop., U.S.,...

INTERVIEW

International Climate

Momentum for Insurance; No Panacea for Tackling Climate Risk

David Bresch has headed the Sustainability & Political Risk Management Unit at Swiss Re in Zurich since 2008, and he has lectured on climate adaptation and risk insurance as an emerging tool to provide a kind of last line of defense for property...



Inside EPA's **Risk Policy Report**, 01/26/2016

http://insideepa.com/newsletters/risk-policy-report

Latest News

EPA Approval Of EOR Monitoring Plan May Ease GHG Reporting Concerns

EPA's approval of a greenhouse gas (GHG) monitoring, reporting and verification (MRV) plan for an enhanced oil recovery (EOR) project that aims to also conduct carbon capture and sequestration (CCS) could ease concerns about how the agency intends to apply its GHG reporting mandates to joint EOR-CCS operations, industry sources say.



ENERGY MARKETS:

FERC emboldened by Supreme Court victory

Robin Bravender, E&E reporter

Published: Monday, January 25, 2016

A landmark Supreme Court opinion issued today underscored the government's power to regulate an evolving electric grid.

In a 6-2 opinion issued this morning, the high court sided with the Federal Energy Regulatory Commission by reviving the agency's contentious "demand-response" rule aimed at encouraging energy conservation.

A majority of the justices found that FERC did indeed have the authority to issue a regulation requiring that power users be paid for committing to scale back electricity use at times of peak demand.

The Supreme Court reversed a lower court decision that tossed out the rule. The U.S. Court of Appeals for the District of Columbia Circuit ruled that FERC overstepped its authority by wading into states' regulatory turf and had set an illegal payment scheme.

Led by Justice Elena Kagan, the high court found that FERC hadn't exceeded its power and that the Federal Power Act "provides FERC with the authority to regulate wholesale market operators' compensation of demand response bids." The court also found that FERC's compensation system "is not arbitrary and capricious," contrary to the lower court's ruling.

Kagan was joined in the majority opinion by Chief Justice John Roberts and Justices Anthony Kennedy, Ruth Bader Ginsburg, Stephen Breyer and Sonia Sotomayor.

The decision "really recognized the agency's expertise," said Vanderbilt University law professor Jim Rossi, who co-authored an amicus brief calling on the court to back FERC's authority.

He added, "It comes as we're seeing increasing innovation, volatility in interstate energy markets." The decision makes it clear that when it comes to "the problems presented by dynamic modern energy markets," FERC's "tools are fairly expansive and flexible."

Justices Antonin Scalia and Clarence Thomas took a drastically different view of FERC's authority in their dissenting opinion.

"I believe the Federal Power Act ... prohibits the Federal Energy Regulatory Commission (FERC) from regulating the demand response of retail purchasers of power," Scalia wrote.

"While the majority would find every sale of electric energy to be *within* FERC's authority to regulate *unless* the transaction is demonstrably a retail sale, the statute actually *excludes* from FERC's jurisdiction all sales of electric energy *except* those that are demonstrably sales at wholesale," he added.

Opponents of the demand-response rule criticized today's ruling. "The Supreme Court sends a clear message by ruling in favor of FERC's power demand rule: Energy politics are a game that ignores both the rule of law and states' constitutional authority," said Myron Ebell of the conservative Competitive Enterprise Institute. "The effect of this decision trickles down to each individual consumer."

Scott Segal, an attorney at Bracewell who represents utilities, saw the opinion as taking a "pretty limited view" of FERC's authority. "The Court has said that there is still a substantial statutory separation

between FERC's wholesale authority and state retail rate-making," Segal said. "It recognized demand response as an exception noting that FERC was responding to a market-developed concept that had been approved by Congress and had a consumer protection and reliability rationale."

Only eight justices heard the case; Justice Samuel Alito had recused himself, likely due to his financial interests.

Today's decision to resuscitate the FERC rule came as a surprise to some experts tracking the case. Following oral arguments last year, many lawyers predicted that the court would divide 4-4 on the issue, which would have upheld the lower court's decision.

"I was pleasantly surprised it was 6-2, but I was not surprised that we in fact won the case," former FERC Chairman Jon Wellinghoff, a chief architect of the rule, said in an interview today.

"I think this is one of the greatest decisions for consumers and for the advancement of the utility grid in this decade," Wellinghoff added. He said the lower court's ruling had been "holding back companies" and that the Supreme Court ruling will "open up the markets in a very wide way."

The Obama administration warned that the ramifications of throwing out the rule would be high. Solicitor General Donald Verrilli, who represented the agency in the court arguments, told the justices that the demand-response rule could bring about billions of dollars in consumer benefits by lowering electricity rates and would help protect the grid against blackouts and brownouts.

Click here to read the opinion.

COAL:

Leasing moratorium's bark worse than its bite

Dylan Brown, E&E reporter

Published: Monday, January 25, 2016

Coal companies and environmentalists agree -- the Obama administration's new moratorium on federal coal leasing is monumental, just not right now.

Mines won't be shutting down during the roughly three years needed to complete a programmatic environmental impact statement of the Interior Department's coal program, but potential changes stemming from the review terrify industry and coal-state lawmakers.

And it will almost certainly play out in the Powder River Basin. Forty percent of American coal is mined on federal land, most of it cheap PRB coal from Wyoming.

Last year, the Obama administration hosted "listening sessions" around the country and in the basin asking the same question it now wants to answer definitively: Are taxpayers getting a good deal for selling their coal (*Greenwire*, Jan. 16)?

The opposing viewpoints, with a sprinkling of landowners and residents on either side, weighed in during the sessions. Earlier this month, environmental and taxpayer groups and their allies praised the moratorium announcement as a first step toward "clearly" needed reform.

If royalty rates and leasing fees actually accounted for carbon costs, Jeremy Nichols, Climate and Energy

Program director for WildEarth Guardians, said coal would not be affordable to mine.

"The only way that the American public truly gets a fair share is if coal is kept in the ground," he said.

Industry leaders have long said stopping coal production is what leasing critics have always really wanted. Companies immediately scorned the moratorium.

Cloud Peak Energy Inc., which focuses on mining in the PRB, chastised the Obama administration for pandering to environmentalists over "working class Americans" and state governors in states where coal has generated billions in revenue.

At the same time, CEO Colin Marshall said Cloud Peak did not expect "any immediate impact on our operations," thanks to "a strong coal reserve position" and private coal holdings.

James Stevenson, director of North American coal at IHS Energy, said that's true industry wide as companies aren't out leasing coal they plan to mine next year. The Obama administration estimated that 20 years' worth of coal is already under lease.

The problem, Stevenson said, is the "clear message" in the administration's language about incorporating environmental costs into leasing. Royalties and rent payments look set to rise.

"Changing cost structure isn't going to put them out of business, probably," he said, but it could have at least some effect, even in the cheap reserves of the PRB.

A good deal?

Americans are already getting a good deal for coal mined on public lands, according to Travis Deti, assistant director of the Wyoming Mining Association.

"There are some areas that can be improved, like in the instance of transparency," Deti said. "But we feel that the way the BLM has been setting fair market values works, and we feel that royalty rates are very fair."

Cloud Peak said it paid $354 million in taxes and royalties and $69 million for leases in 2014 while only bringing in a net income of $79 million.

"The current leasing system provides significant benefit to American taxpayers and is not broken," Marshall said, adding, "As the country comes out of a deep and long recession, now is not the time to raise electricity costs and cut an important source of revenue."

If, as expected, the Obama administration sets minimum bid prices and raises royalty rates to include the social cost of carbon, "whatever that means," Deti said, the impact will be big.

"The ultimate outcome is going to be you're going to make the coal uneconomical to mine," he said.

University of Colorado Law School professor Mark Squillace said he hopes the moratorium "signals the beginning of the end" for federal coal leasing because the public is already getting a raw deal.

The billions of dollars filling government coffers looks like a lot, but Squillace said it only represents a tiny fraction of coal's actual market value.

Coal leases sell for 20 to 30 cents a ton, while even for cheap PRB coal, companies make for more about

$13 a ton, said Squillace, long an advocate of reform.

"I think it's pretty clear that a higher price could be sustained," he said, advocating for reasonable minimum bid prices -- $1 per ton or maybe more.

"If the applicants don't want to buy the coal for more than a minimum bid price, then that's fine; the government should hang onto the coal until it's really needed," he said.

Two previous presidents have put federal coal leasing on hold in response to similar concerns -- Republicans Ronald Reagan and Richard Nixon.

Squillace said Nixon halted federal coal leasing amid rampant speculation in 1973, and three years later, Congress responded with the 1976 Federal Coal Leasing Amendments Act.

In 1984, Interior Secretary William Clark voluntarily suspended all coal leasing after his predecessor, James Watt, sold off massive tracts of public land at fire-sale prices, prompting Congress to form the Linowes Commission to investigate.

Watt resigned in 1983 after an uproar followed his comments to the U.S. Chamber of Commerce about the Linowes Commission, "I have a black, a woman, two Jews and a cripple. And we have talent."

Today, according to Squillace, most economists don't believe coal can compete if it has to pay for its external costs. While more coal may need to be leased to supply power plants, Squillace said the shift away from coal is only going to continue as global demand wanes, as well.

"Short of some miracle technology that allows us to extract the carbon from this coal and to do it inexpensively ... I just don't see any way that this trend is going to be reversed," he said.

The ins and outs

While he applauded the moratorium, Squillace said he was "a little disappointed" about 18 pending leases that will be allowed to move forward, according to a list posted online by the Bureau of Land Management.

"Several of these had records of decision issued as late as December of last year ... presumably when the government knew they were going to impose a moratorium, and I find that problematic and somewhat disingenuous," he said.

The BLM list also includes leases the agency may put on hold. But many of those have already been dormant, sometimes for years at the request of companies, amid the coal market slowdown.

In Colorado, for example, four out the five leases affected by the moratorium are related to closed, idled or nonexistent mines, according to Earthjustice Staff Attorney Ted Zukoski.

Included on the list are leases requested by coal companies that have filed for bankruptcy, including Arch Coal Inc. (*Greenwire*, Jan. 11).

"It is not in the public interest to sell publicly owned coal to bankrupt coal companies; I think that is a recipe for disaster," Nichols said. "That is essentially putting massive liabilities upon the American public."

All these issues could presumably be part of the programmatic environmental impact statement. For Squillace, the central issue is that individual coal companies can't be expected to manage the fallout of

their industry's troubles.

"The government has a responsibility to manage how the decline of coal is going to occur, trying to help communities that are going to be affected by the decline, and manage the healthy economic transition," he said.

The Wyoming Mining Association's Deti said coal companies are weathering "a perfect storm" as weak overseas demand and cheap natural gas deaden the market.

"I'm not necessarily sure that it's simply a bust cycle, but I think we're seeing a realignment of the industry," he said.

But uncertainty created by the moratorium and regulations can't be overlooked, Deti said, as contracts with utilities rely on long-term forecasts.

DOE:

5 key players in Paris pact's landmark clean-energy initiative

Christa Marshall, E&E reporter

Published: Monday, January 25, 2016

The Department of Energy is at the center of a key question that emerged from last year's climate talks in Paris: How will the United States implement a historic plan to double research and development funding over five years?

At the United Nations' climate change conference, President Obama joined other world leaders in announcing "Mission Innovation" -- a plan for 20 countries to collectively double spending on clean energy from $10 billion to $20 billion, with the United States providing half the total.

SPECIAL SERIES



In this series, E&E rounds up some of the key players on energy and environmental policy.

Simultaneously, Microsoft co-founder Bill Gates and some of the world's wealthiest entrepreneurs pledged to work with governments to discover the next generation of energy breakthroughs through the newly formed Breakthrough Energy Coalition.

In the United States, the project now stretches from Energy Secretary Ernest Moniz's office to Capitol Hill to the national labs and multiple offices. Officials are weighing questions such as whether to expand existing programs -- or perhaps create new ones -- as Mission Innovation works its way through what one official calls its "design phase."

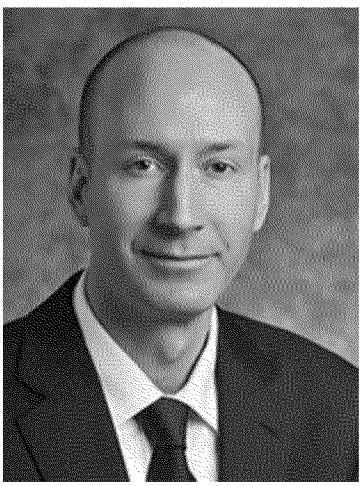
Separately, DOE is gearing up for various initiatives that also could lead to new technology developments, including the release this year of the second installment of the Quadrennial Energy Review. The report will focus on electricity from generation to end use, and how the system as a whole is evolving because of integration of new technologies, changing market conditions and other factors.

Here are five officials who are central to Mission Innovation and DOE's broader technology agenda:

David Turk

As DOE's deputy assistant secretary for international climate and technology, Turk said he is "cautiously optimistic" that Congress will provide support for Mission Innovation, based on preliminary conversations.

"One of the things I enjoy about working with Secretary Moniz is ... he understands that he does all the legwork necessary to have the relationships and genuinely listens to all folks on all sides of the political spectrum," said Turk, who has been a major figure in Washington energy circles for years, including as a former deputy special envoy for climate change at the Department of State.



David Turk. Photo courtesy of DOE.

In his current role, Turk will work extensively with the 19 other countries that have taken the R&D budget pledge as part of the international component of Mission Innovation. He'll help set up a "regime" for information sharing among them to identify areas of overlap and knowledge gaps.

Key to that effort will be the Clean Energy Ministerial this June in San Francisco, which Turk said he and others are "trying to take to a new whole level of effectiveness." There are early discussions about a potential new multilateral secretariat and a possible technology showcase in the city's Union Square, among other things.

"I think it will be a bigger meeting, a more higher-profile meeting. ... We're looking to add some really interesting tie-ins with some of the key companies in the Bay Area," he said.

In San Francisco, international leaders will meet privately to discuss Mission Innovation, and there is a "consensus emerging" that this may be when countries move beyond internal decisionmaking to "external signs of progress," Turk said.

He also will be spending much of his time this year on bilateral work in countries like India, where efforts to improve air conditioner efficiency alone could save the need for hundreds of new power plants being

constructed, he said.

Turk grew up in Illinois but also spent his first six years in Latin America, an experience he said provided him with a unique perspective. "If you are going to do international work, you need to know what motivates others coming from other countries and what are their political imperatives," he said.

In addition to his past work as a central member of the U.S. climate negotiating team, Turk formerly served as a special assistant to Obama and senior director for congressional affairs at the U.S. National Security Council. He said he enjoys his current position in part because it is in the "action-oriented space."

"We're trying to impact the real world," he said.

Turk also spent eight years on Capitol Hill, working for former Sens. Kent Conrad (D-N.D.) and Joe Biden (D-Del.) and Rep. Henry Waxman (D-Calif.).

A father of three, he enjoys hiking, traveling and playing basketball with friends. The sport is the "one two-hour chunk beyond work and family that I get," he said.

Jonathan Pershing

Pershing says he wears "two hats" in his current position as the principal deputy director of DOE's Office of Energy Policy and Systems Analysis. One is to support DOE's domestic policy agenda, which this year involves an extensive focus on the second tranche of the Quadrennial Energy Review, a road map that will be a "deep dive into electricity," from transmission to distribution.

As one of the people overseeing the work and providing policy guidance for it, Pershing is grappling with a wide range of questions such as the effect of recharging requirements on electric vehicles and the planned retirements of nuclear facilities.



Jonathan Pershing. Photo courtesy of DOE.

"That's a low-carbon generation that's retiring; are you replacing it with low-carbon generation? How does that work? What does it mean for distribution and for transmission?" Pershing asked about nuclear plant retirements as an example of one of the many questions under consideration with the QER process.

There will be a series of interim milestones and technical papers -- in consultation with the national labs --

that will inform the discussion before the QER is released, Pershing said. Workshops are a critical part of the discussions, as is regional input, considering the different fuel mixes found in different parts of the country.

His second "hat" is being a key adviser to Moniz on climate change, a role that touches on everything from international conversations with Chinese officials to clean energy loans. The United States has pledged to slash economywide emissions 26 to 28 percent below 2005 levels by 2025 -- a target that is expected to be met partly through U.S. EPA's Clean Power Plan but also through action from DOE tools such as efficiency standards.

"Part of my job is to help oversee progress and then next steps," he said, referring to a range of emission-cutting tools such as building efficiencies. He is also helping the department consider post-2025 emission reductions and what options are available to meet them, he explained.

Mission Innovation is a key part of that. While the technologies that will be in place over the next decade or so are clear, "beyond that we have to go much more aggressively," he said. He emphasized that both parties in Congress historically have been interested in innovation, and that the doubling in research and development is not occuring in one year.

Right now, a plan to eventually double department research funding is "in the design phase," with considerations of both expanding existing programs and proposing new ones. The upcoming budget process will be a key component. "Stay tuned," he said.

Holding a doctorate in geophysics and geology, Pershing has worked for many years in Washington on climate and energy issues.

He formerly served as the deputy special envoy for climate change and the lead negotiator representing the United States at the U.N. Framework Convention on Climate Change, a role that he said was a huge privilege and gave him a "front-row seat" to history. He also was a lead author and contributor for reports of the Intergovernmental Panel on Climate Change and the former director of the Climate, Energy and Pollution Program at the World Resources Institute. He's also held positions as a petroleum and mining geologist and as an adjunct faculty member at the University of Minnesota and American University.

Outside of work, Pershing said he reads "voraciously" and enjoys biking 15 miles to and from work. He has three children, including one in college and one in the Peace Corps. He also returned recently to spending a lot of time working on a pottery wheel. "It is remarkably rewarding; it works immediately," he said.

Jetta Wong

Wong is the director of one of the newer DOE entities, the Office of Technology Transitions, which launched last year in part to boost the commercial impact of the department's research.

With the office being relatively new, one of Wong's key goals this year will be getting its Clean Energy Investment Center "up and running," partly because of its link to Mission Innovation. Wong said the center, which named its first director this month, is expected to be a main point of contact with the Breakthrough Energy Coalition, the new group of wealthy investors led by Gates to work with countries aiming to double their R&D budgets. That role fits with the center's original design to be a "single point of access" for investors.



Jetta Wong. Photo courtesy of DOE.

Part of OTT's role "is really making sure all the great models of work going on at the national labs are being discussed and kind of opened to the investment community," she said.

She noted that DOE is already one of the largest contributors to technology transfer in the federal government. According to a report released by the National Institutes of Standards and Technology last October, DOE is responsible for almost 90 percent of the total number of active licenses, and it has supported the most startups of any agency, she said.

"Despite these figures, our greatest need is raising awareness among the nation's innovators and entrepreneurs about the resources and capabilities available to them at our 17 national laboratories and our five production facilities located nationwide," she said.

Wong also is preparing for her "top priority," the pending launch of the Technology Commercialization Fund, which is focused on bringing more technologies from DOE's labs to market.

The approximately $20 million fund -- which was authorized under the Energy Policy Act of 2005 -- would leverage R&D funding in DOE's applied energy programs. The funds would be matched by private partners to promote "promising energy technologies" for commercial purposes.

Before coming to DOE, Wong worked for the House Science, Space and Technology Committee at a time when former Chairman Bart Gordon (D-Tenn.) was helping the panel focus on American competitiveness through science and technology, she said.

"When I was on the committee, I realized that was really important to me, because without the science and technology background, we're not able to solve what I think [is] one of our most important issues of the day, and that's climate change," she said.

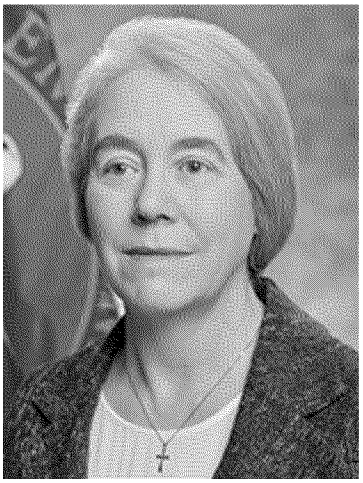
Prior to her stint on Capitol Hill, she worked for the Clean Energy Program at the Union of Concerned Scientists and for the Environmental and Energy Study Institute, where she focused on biomass issues. Her energy career started in Uzbekistan as a consultant on an anaerobic digestion project, according to DOE.

Wong's hobbies including skiing, and biking and hiking in the summer. She also is an avid gardener. "I love my tomato plants and my peppers," she said.

Ellen Williams

As part of the brainstorming with Mission Innovation, Turk said there are discussions to "improve and expand" the reach of the Advanced Research Projects Agency-Energy, or ARPA-E.

"You could certainly see an increased effort to expand that program in the U.S. context for funding," he said. Modeled after the Defense Advanced Research Projects Agency, ARPA-E targets energy technologies that are not ready for private-sector investment but hold the potential for a major impact on the energy sector.



Ellen Williams. Photo courtesy of DOE.

At the center is Williams, the director of ARPA-E for more than a year. Echoing Turk, when asked what her top priorities are for the year, she noted she has been making the case why the agency should expand and "what we can do with an expansion." That would inevitably involve an increased budget, but it also hinges on awareness of how ARPA-E is making an impact on the ground, beyond its frequent announcements of money awards to cutting-edge technologies.

When asked about that, Williams quickly detailed some of the agency's successes, such as Makani's energy kite, a gliderlike turbine with attached rotors that propel it like a helicopter from the ground. The kite harnesses wind at high altitudes to operate a generator that sends power down a tether. It got financial help from ARPA-E before being acquired by Google in 2013.

"Our understanding is that they now have been developing that technology ever since ... and are really looking at a larger-scale unit," Williams said.

She also is excited about some of the new areas ARPA-E is focusing on, such as management of the electric power grid with help from supercomputers. "We've been working really hard to use that power of analytical mathematics and computational mathematics to the issue of solving the complexity of the electric power grid," she said.

Another focus this year will be "just making sure that ARPA-E remains ARPA-E." "I really feel like one of my primary missions is to preserve ARPA-E's strength and sustain what has already been built," she said. She cited its ability to bring in high-quality program directors for term-limited periods, so they can work on a very fast time scale to identify new and cutting-edge technologies.

Williams grew up in the suburbs of Detroit before earning a doctorate in chemistry at the California

Institute of Technology. Prior to coming to DOE, she worked as chief scientist for oil giant BP PLC. She also was a professor in the Department of Physics at the University of Maryland, where she founded the Materials Research Science and Engineering Center.

Outside of work, Williams loves to hike and walk long distances over rugged terrains. The demands of the job don't allow that all the time, "but on a day-to-day basis, I make up for it by walking my dog a lot," she said.

Cherry Murray

For Murray, who was confirmed as the head of the Office of Science last month, the commercialization process for new technologies is not linear.

"Often a beautiful discovery in science becomes suddenly 'useful' 20 to 30 years later, when a connection is made, and clever engineering can incorporate the discovery into technology," she said in an email.



Cherry Murray. Photo courtesy of Harvard.

"And at other times, we need to understand some basic science in order to overcome a hurdle in technology. These opportunities happen when scientists are on the development team and can make the intellectual connections. This harmony between science and engineering and bringing in the voice of the customer is critical for the Mission Innovation initiative."

The office's role with Mission Innovation in part is that it funds areas that appear to be gaps in understanding, she said. "We will continue to learn about these gaps through our scientific advisory committees and by multiple community stakeholder workshops."

Some DOE observers said they also will be watching whether there is an extensive effort to enhance the commercial impact of the national labs, so that scientists think more about the commercial pathway of their work at the outset. The Office of Science manages 10 of the nation's national laboratories and is the largest supporter of physical sciences in the United States.

Murray served on a congressionally mandated commission to reform the national labs that released a broad array of recommendations last year and concluded that the labs' relationship with DOE was "broken" and "inhibiting performance" (*E&E Daily*, Nov. 16, 2015). She said many of the suggestions from the group's final report are highly relevant to her office.

For example, one of her priorities this year is to begin two pilots of "streamlined contracts," to help streamline the management and operations contracts of all the science labs.

"I also will be working with the applied energy offices and the rest of the department to enable all labs, not just the science labs, to have much easier collaborations with industry, especially small and entrepreneurial businesses, as this will help unlock their potential to be powerhouses for regional economic development," she said.

Murray said she also wants to increase relationships with research universities, as about 35 percent of the office's research dollars go to university researchers.

The daughter of an Army captain, Murray lived in multiple countries as a child, according to congressional testimony last October. She taught herself physics from ordered textbooks during her last years of high school in Seoul, South Korea, before earning a doctorate in physics from the Massachusetts Institute of Technology.

Her career has since taken turns in government, academia and industry, with positions including dean of the School of Engineering and Applied Sciences at Harvard University from 2009 to 2014 and principal associate director for science and technology at Lawrence Livermore National Laboratory from 2007 to 2009.

"The national labs at their best are able to work together and with university researchers and industrial collaborators to respond quickly as a network with technology solutions to national emergencies," she told *Greenwire*.

Murray also worked in various positions at Bell Laboratories and Lucent Technologies and was appointed to the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling in 2010. Her awards include the 2014 National Medal of Technology and Innovation for "contributions to the advancement of devices for telecommunications, the use of light for studying matter, and for leadership in the development of the STEM workforce in the United States," according to DOE.

She said she enjoys reading history and science fiction and hiking around the mountains near Tucson, Ariz., with her sister "when I have any spare time."

CAPITOL HILL:

House cancels votes; Senate energy debate Wed.

Manuel Quiñones, E&E reporter

Published: Monday, January 25, 2016

The Senate likely will begin debating broad energy reform legislation Wednesday, delayed by the massive snowstorm that hit the Washington, D.C., area over the weekend.

The House, originally scheduled for a short workweek because of the Democrats' retreat, canceled all planned votes tomorrow and Wednesday because of the snow.

The House Democrats' retreat is moving forward as planned, kicking off Wednesday in Baltimore (*see related story*). All House lawmakers will be back to work in earnest on Feb. 1.

Perhaps the biggest activity at the Capitol in recent days has been area residents sledding down the hill

on the west front of the building. The sledding ban stands, but last year, lawmakers instructed U.S. Capitol Police not to enforce it.

Back inside, the leaders of various committees have slowly been putting off hearings on energy and environmental issues, including a Senate Environment and Public Works meeting on coal ash, brownfields and mine cleanup legislation.

Lawmakers also punted hearings on the renewable fuel standard, fisheries legislation and the impact of U.S. EPA regulations on rural communities. Many of those meetings will be back on the calendar in the coming weeks.

POLITICS:

Steyer, Obama to speak at House Democratic retreat

George Cahlink, E&E reporter

Published: Monday, January 25, 2016

Billionaire environmental activist Tom Steyer is slated to speak to House Democrats as they gather later this week for their annual three-day legislative retreat in Baltimore.

The headline speakers at the retreat that begins Wednesday are President Obama and Vice President Joe Biden. Others due to appear include AFL-CIO President Richard Trumka, several leaders of left-leaning public policy groups and "The Daily Show" host Trevor Noah.

House Democratic Conference Chairman Xavier Becerra (D-Calif.) said the retreat's theme is "united for opportunity" and promised "dynamic policy discussions" with "experts" like Steyer. No specific topic was offered for Steyer's remarks.

Steyer, whose political action committee NextGen spent $74 million in the 2014 elections, is expected to be a major donor in 2016, too. He has yet to endorse a presidential candidate, and the former hedge fund manager has not ruled out a run for governor of California in 2018. He resides in San Francisco (*Greenwire*, Nov. 30, 2015).

Unlike the bicameral GOP retreat earlier this month, Democratic senators will not be making the trek north to Baltimore. They quietly gathered earlier this month on Capitol Hill for an afternoon to review their legislative agenda.

CAMPAIGN 2016:

Former EPA chiefs defend Clinton on climate change

Kevin Bogardus, E&E reporter

Published: Monday, January 25, 2016

Former U.S. EPA Administrators Lisa Jackson and Carol Browner have offered a strong defense of Hillary Clinton's environmental record.

In an op-ed published Friday in the online platform Medium, Jackson and Browner said the front-runner

for the Democratic Party's 2016 presidential nomination has a long history of combating climate change.

Jackson, EPA chief during President Obama's first term, and Browner, who served as head of the agency during the length of the Bill Clinton administration and as a top energy and climate change aide to Obama, recount some of the steps that both presidents took to improve the environment, including toughening ozone standards and implementing stricter fuel efficiency standards.

As first lady, New York senator and secretary of State, Hillary Clinton was right behind those moves, according to the former EPA administrators.

"Through it all, Hillary Clinton was right there with us," Jackson and Browner said. "Over the years, the two of us have seen first-hand that Hillary has more than a plan to fight climate change."

They said, "She has a vision that would make America the global leader in tackling this crisis, as well as the world's 21st-century clean energy superpower."

Jackson and Browner noted Clinton's work on climate change, from extending clean energy tax credits as a senator to appointing the first special envoy for climate change while at State.

Now, in 2016, the ex-agency heads "see a presidential candidate with the most impressive and progressive agenda for tackling climate change."

Jackson and Browner cite several of Clinton's positions on environmental issues, including opposition to offshore drilling in the Arctic and building of the Keystone XL pipeline, plus her support of EPA's Clean Power Plan and fulfilling U.S. obligations under the Paris climate talks.

The two environmental heavyweights also note the League of Conservation Voters' endorsement of Clinton for her environmental record (*Greenwire*, Nov. 9, 2015).

"Hillary's lifelong fight to protect our environment is why the League of Conservation Voters has endorsed her. And it's why the two of us are proud to call her not just a friend, but one of the best allies we've ever had at our side," Jackson and Browner said.

Further, LCV today released a memorandum to reporters, also defending Clinton's record on climate change.

"Not only has Hillary been outspoken about how she plans to meet the climate challenge head-on, she has the record and experience to build on the achievements of the Obama presidency," said the environmental group's memo.

Other environmental activists and Democratic presidential hopefuls, including Sen. Bernie Sanders (I-Vt.), have questioned whether Clinton has been aggressive enough on climate and environmental issues. The political arm of the group Friends of the Earth is backing the Vermont senator.

Last week, a spokesman for Sanders touted the candidate's record on climate change and asked about Clinton's promised plan to deal with the issue. It led to a skirmish between the campaigns (*Greenwire*, Jan. 21).

Click here to read Jackson and Browner's op-ed.

GRID:

Supreme Court rejects energy pricing case

Robin Bravender, E&E reporter

Published: Monday, January 25, 2016

The Supreme Court today refused to hear a case surrounding how much a utility is required to pay a family producing wind power.

In a customary short order, the high court rejected an appeal from Gregory and Beverly Swecker, owners of a small farm in Iowa with a wind generator.

The Sweckers sell surplus electric energy to Midland Power Cooperative and have been engaged in legal battles for more than a decade with the utility over the rate paid for their wind power.

The Federal Energy Regulatory Commission requires utilities to purchase energy from small renewable energy generators known as "qualifying facilities."

In this case, the Sweckers argued that Midland wasn't paying enough for the "avoided cost" of the energy generated by their windmill.

The 8th U.S. Circuit Court of Appeals last year upheld a lower-court ruling dismissing the Sweckers' claim.

DOE:

Feds ink $74M settlement with N.M. for 2014 radiation leak

Hannah Hess, E&E reporter

Published: Monday, January 25, 2016

The Energy Department and its contractors inked settlement agreements worth $74 million Friday with New Mexico's Environment Department over a February 2014 radioactive leak, reportedly tied to the use of the wrong cat litter.

Under two legal deals related to the leak that shuttered the Waste Isolation Pilot Plant (WIPP), New Mexico's roads, water lines and emergency response infrastructure would see funding boosted, rather than pay more than $54 million in fines.

Southeastern New Mexico roads, including the 13-mile stretch connecting WIPP to the highway system, would get $34 million. Another $12 million will be spent to improve DOE-owned transportation routes used to ship nuclear waste from the Los Alamos National Laboratory (LANL) to WIPP.

The state also targeted LANL for improperly mixing Swheat Scoop, a wheat-based kitty litter, into a drum of nuclear waste and failing to "exercise reasonable and necessary precautions during unauthorized treatment and storage," according to the agreement (*Greenwire*, March 27, 2015).

With part of the $74 million, an offsite emergency operations center will be built near WIPP to be operated by the federal government. About $4 million is set aside to fund construction and equipment. Local emergency responders in and around Carlsbad, N.M., would receive $1 million for enhanced training and

exercises with local mine rescue teams.

About $20 million will support water infrastructure around LANL, including sampling and monitoring capabilities for stormwater runoff with results to be shared with the public and state environmental officials. An additional $3 million would be set aside to conduct external compliance reviews at WIPP and LANL every three years, an attempt to make sure nuclear contractors comply with environmental rules.

"We are pleased to resolve the Administrative Compliance Orders so that we can continue to focus full attention on resuming and improving our waste management operations at the Waste Isolation Pilot Plant," said Energy Secretary Ernest Moniz. "The projects we are funding as part of this settlement are important investments in the health and safety of New Mexicans who work or live at nearby DOE facilities, and will enhance our operations."

DOE last week said it hopes to resume operations at WIPP in December, releasing a revised schedule that reflects delays.

Terms of the settlement were announced last April, 14 months after 22 workers were exposed to radiation (*Greenwire*, May 1, 2015). As the state worked with DOE to finalize the agreement, the agency and the lab came under fire for failing to meet legally binding cleanup milestones. Last week, the nonprofit group Nuclear Watch New Mexico filed notice that it intends to sue over the cleanup delays (*Greenwire*, Jan. 21).

The radiation leak influenced the National Nuclear Security Administration's decision not to extend Los Alamos National Security LLC's contract. NNSA plans to put the LANL contract out for competitive bidding sometime after 2017, a process New Mexico's congressional delegation said it plans to closely monitor.

COAL:

Appeals court backs Obama admin black lung rule

Jeremy P. Jacobs, E&E reporter

Published: Monday, January 25, 2016

Federal judges today rejected coal industry challenges to a major Obama administration rule aimed at curbing black lung disease in miners.

The 11th U.S. Circuit Court of Appeals denied efforts by the National Mining Association, Murray Energy Corp. and others to undercut the May 2014 regulations.

Issued by the Department of Labor's Mine Safety and Health Administration, the rule is aimed at reducing exposure to coal dust through more robust monitoring and inspection requirements.

The industry challengers made several claims in two lawsuits, including that the Obama administration was seeking a "one-size-fits-all" solution for a broad and diverse industry with varying types of mines.

A three-judge 11th Circuit panel, based in Atlanta, heard the consolidated cases and rejected each of the industry's contentions.

One of the challengers' key arguments was that MSHA should have released the regulations in concert with the Department of Health and Human Services.

The panel rejected that contention.

Senior Judge Kenneth Ripple, a Republican appointee, wrote for the unanimous panel that the 1977 Federal Mine Safety and Health Act "clearly evinces a congressional intent that, although it must consider the advice of [HHS], MSHA has the sole responsibility to issue regulations covering the subjects addressed by this rule."

Further, Ripple added that MSHA did take comments from HHS on every substantive aspect of the rule.

"Nothing more is required," Ripple wrote.

The court also weighed several specific challenges to aspects of the rules. But for each, it sided with the Labor Department's interpretation, noting that it was "worthy of deference."

The coal dust rule has been in the works for decades. The Labor Department's previous efforts were rejected in court.

Coal industry proponents have also criticized the rule's estimated $27 million per year in compliance costs, which they said would further cripple mining companies (*Greenwire*, April 23, 2014).

Click here for the opinion.

COAL:

Murray asks judge to delay trial to attend GOP convention

Dylan Brown, E&E reporter

Published: Monday, January 25, 2016

Murray Energy Corp. is asking a federal judge to postpone trial in litigation by the company against U.S. EPA to allow CEO Robert Murray to attend the Republican National Convention.

At issue is a case by Murray accusing EPA of not taking enough account of the economic effects of agency rules. Trial was set for the week of July 18, the same week as the convention in Cleveland -- the company's home state.

In November, the 4th U.S. Circuit Court of Appeals blocked Murray's attempt to depose U.S. EPA Administrator Gina McCarthy as part of its lawsuit (*Greenwire*, Dec. 9, 2015).

The motion filed Friday in U.S. District Court for the Northern District of West Virginia says Murray is a key witness in the case, but he is also "a very active member of the Republican Party, both nationally and in Ohio."

The filing says EPA does not object to moving the trial date.

UTILITIES:

Grid upgrades would help slash emissions 78% from 1990 levels --

study

Amanda Reilly, E&E reporter

Published: Monday, January 25, 2016

The U.S. power sector could cut its greenhouse gas emissions by more than three-quarters in the next 15 years compared with 1990 levels, according to new modeling by federal scientists.

The researchers found that power producers could achieve up to a 78 percent emission reduction while keeping up with increased electricity demand. But they said investment in transmission infrastructure would be key to keeping future electricity costs down.

The nation would need to move away from a power system that's divided into regions to a national "interstate for electrons," said Alexander MacDonald, one of the study's lead authors and former director of the National Oceanic and Atmospheric Administration's Earth System Research Laboratory.

"Our research shows a transition to a reliable, low-carbon, electrical generation and transmission system can be accomplished with commercially available technology and within 15 years," MacDonald said in a statement today.

Scientists from NOAA and the NOAA-affiliated Cooperative Institute for Research in Environmental Sciences at the University of Colorado, Boulder, designed the computer model. The results were published online today in the journal *Nature Climate Change*.

The model employs NOAA's meteorological data and takes into account demand for energy and the costs of supplying electricity through fossil fuels and renewable energy sources. The researchers looked at various price scenarios, including ones in which the price of renewable energy is higher than is currently predicted.

In what the researchers said was the expected future scenario -- one with lower renewable energy costs and higher natural gas costs -- the model predicted that the power sector could cut carbon dioxide emissions by 78 percent by 2030 compared with 1990 levels. Electricity would cost 10 cents per kilowatt-hour, up from its 2012 level of 9.4 cents.

Another scenario with higher renewable energy costs predicted that the system could achieve a 33 percent cut in greenhouse gas emissions and deliver electricity at 8.6 cents per kilowatt-hour. Including coal in the future energy mix meant lower costs -- 8.5 cents per kilowatt-hour -- but higher emissions.

Reducing the cost of using renewable energy would require upgrades in transmission infrastructure, the scientists said. Their model assumes the creation of a new high-voltage direct-current (HVDC) transmission grid, which lowers the chance of energy losses.

Such a grid would reduce the need for utilities to build up reserves of excess capacity through natural-gas-powered generators, according to the authors.

"With an 'interstate for electrons,' renewable energy could be delivered anywhere in the country while emissions plummet," MacDonald said. "An HVDC grid would create a national electricity market in which all types of generation, including low-carbon sources, compete on a cost basis. The surprise was how dominant wind and solar could be."

Stanford University environmental engineer Mark Jacobson, who was not affiliated with the study, said today in a statement that it "pushes the envelope" on greenhouse gas emissions and the power sector.

"The need for new energy storage is often seen as an obstacle to integrating renewable electricity into national power systems," he wrote in an editorial today in *Nature Climate Change*. "Modelling shows that existing technologies could provide significant emissions reductions in the US without the need for storage."

SCIENCE:

Humans almost certainly caused warmer years -- study

Published: Monday, January 25, 2016

Humans are almost certainly the reason that 13 of Earth's 15 warmest years occurred from 2000 to 2014, according to a new study.

"Recent observed runs of record temperatures are extremely unlikely to have occurred in the absence of human-caused global warming," scientists wrote in the journal *Scientific Reports*.

The study found that the chances of so many record years happening in a row without human influence were between 1 in 770 and 1 in 10,000. The study, published today, was written before the National Oceanic and Atmospheric Administration declared 2015 to be the second-warmest year on record (*Greenwire*, Jan. 7).

"Climate change is real, human-caused and no longer subtle -- we're seeing it play out before our eyes," lead author Michael Mann said (Alister Doyle, Reuters, Jan. 25). **-- BTP**

OIL AND GAS:

Exxon predicts 50% drop in carbon intensity by 2040

Published: Monday, January 25, 2016

Clarification appended.

The carbon intensity of the world's economy will drop by 50 percent by 2040 due to increased efficiency and renewable fuel use, Exxon Mobil Corp. said today, but greenhouse gas emissions will become more expensive because of climate policies.

The long-term outlook from Exxon comes as shareholders are pressing the oil industry to explain how resilient its business models are in the wake of last month's global climate agreement in Paris.

Exxon predicts that energy-related carbon emissions will peak around 2030 before starting to decline, with emissions from developed countries falling by roughly 20 percent from last year to 2040.

"The climate accord reached at the recent COP 21 conference in Paris set many new goals, and while many related policies are still emerging, the outlook continues to anticipate that such policies will increase the cost of carbon dioxide emissions over time," said William Colton, Exxon Mobil's vice president of corporate strategic planning.

But Exxon predicts oil, natural gas and coal will still meet 80 percent of the planet's energy needs through 2040 (Anna Driver, Reuters, Jan. 25). **-- BTP**

Clarification: *An earlier version of this story did not refer to carbon intensity in the headline.*

PEOPLE:

Physicist takes helm of Lawrence Berkeley National Lab

Christa Marshall, E&E reporter

Published: Monday, January 25, 2016

Physicist Michael Witherell will be the eighth director of the Lawrence Berkeley National Laboratory after approval last week by the University of California Board of Regents.

Witherell takes the helm at a time when the lab is overseeing several major initiatives such as the Cyclotron Road, a program providing a home -- as well as mentoring and networking resources -- to researchers so they can advance technologies until they are ready for market.

PEOPLE

"We look forward to seeing the important innovations LBNL will produce under Mike's leadership to help realize America's low-carbon economy and advance scientific frontiers," said Energy Secretary Ernest Moniz in a statement.

With a budget of about $800 million and more than 3,000 employees, the lab conducts research on a range of energy technologies, from solar cells to carbon capture and sequestration. It also manages projects such as ESnet, a high-speed computer network serving the Department of Energy and partners. The University of California manages the lab on behalf of DOE.

Witherell was the former director of the Fermi National Accelerator Laboratory, or Fermilab, in Illinois and held the presidential chair of physics at the University of California, Santa Barbara. He was awarded the W.K.H. Panofsky Prize in Experimental Particle Physics in 1990 for leading an experiment "that collected and studied the first large sample of charmed particles" with equipment known as a silicon microstrip vertex detector, according to the University of California. Witherell also has performed extensive research on dark matter in the universe.

The Berkeley lab "provides both solutions for the greatest technological challenges facing the nation, and scientific discoveries that are worthy of Nobel prizes. I cannot imagine a more rewarding job than leading this great lab," he said in a statement.

Witherell replaces outgoing Director Paul Alivisatos, who ran the lab for seven years and is moving on to be the vice chancellor for research at the University of California, Berkeley, a position that will allow him to oversee campus research. Alivisatos, who will start his new position on March 1, was awarded the National Medal of Science in December (*Greenwire*, Dec. 23, 2015).

METHANE LEAK:

Calif. well could increase global warming

Published: Monday, January 25, 2016

Even after the long-leaking Los Angeles methane well is plugged, scientists and California regulators worry that its emissions could have lasting impacts on increasing global warming.

"It's really moving us in the wrong direction," said Jorn Herner, head of research planning, administration and emissions mitigation at the California Air Resources Board. Gov. Jerry Brown (D) has pledged to reduce California's emissions of methane and other pollutants by 40 percent by 2020.

Over the past three months, the Porter Ranch well has emitted more greenhouse gases than any other facility in the state. It has driven local residents to flee over health concerns (*Greenwire*, Jan. 18).

The leak appears to be slowing, but it's uncertain when it will stop. Once it has stopped, officials will use gas measurements from towers around the area to make a detailed emissions estimate (Tony Barboza, *Los Angeles Times*, Jan. 24). **-- BTP**

OBITUARY:

Climate change doubter Bob Carter dies at 74

Published: Monday, January 25, 2016

Bob Carter, a professor and climate change doubter, has died of a heart attack at his home in Australia. He was 74.

Carter, a geologist, believed there was no evidence that supported climate change as a human-caused activity.

To spread his ideas, he authored the book "Climate: The Counter Consensus" in 2010 and co-authored "Taxing Air: Facts and Fallacies about Climate Change" in 2013.

In 2007, he testified in the British High Court in a case highlighting nine factual errors in Al Gore's climate change film "An Inconvenient Truth."

He presented lectures seeking to debunk common scientific correlations between carbon dioxide levels and temperature, pointing as evidence to an ancient past global ice age even though carbon levels were 12 times higher than today (Money/Green, *Sydney Morning Herald*, Jan. 22). **-- AK**

METHANE LEAK:

Regulators order shutdown of Calif. well

Published: Monday, January 25, 2016

State regulators have ordered utility Southern California Gas Co. to permanently close and seal a storage well that has belched natural gas into the air in a Los Angeles neighborhood for months.

At a hearing Saturday, the South Coast Air Quality Management District also ordered the utility to fund an independent health study for Porter Ranch residents and check 115 other wells at the storage site to make sure they don't leak, as well (*see related story*).

"As a result of this order, SoCalGas must take immediate steps to minimize air pollution and odors from its leaking well and stop the leak as quickly as possible," said Barry Wallerstein, the air district's executive officer.

Advocacy groups said the order is not enough and called for regulators to force the utility to shut down all the wells at the underground storage facility.

The air district's "failure to put Californians' livelihoods first is shameful, and Governor Brown should intervene swiftly," Sierra Club Executive Director Michael Brune said.

Southern California Gas hasn't commented on the order (AP/*Fuel Fix*, Jan. 24). **-- SP**

COAL:

Feds ask Wyo. to re-examine bankrupt company finances

Dylan Brown, E&E reporter

Published: Monday, January 25, 2016

The Obama administration is asking Wyoming regulators to take another look at whether two bankrupt coal companies can meet their mine cleanup liabilities.

At issue is whether Arch Coal Inc. and Alpha Natural Resources Inc. qualify for self-bonding, whereby companies meet financial assurance requirements and ensure future cleanups through the health of their balance sheet.

The Interior Department's Office of Surface Mining and Reclamation sent the Wyoming Department of Environmental Quality's Land Quality Division two letters dated Jan. 21 outlining a series of so-called 10-day notices, which require state regulators to certify they are following the Surface Mining Control and Reclamation Act.

Until now, OSMRE has been largely silent on the contentious nationwide debate over reclamation liabilities, as a procession of coal companies have gone bankrupt amid collapsing prices and foreign demand.

One letter focuses on Arch Coal Inc., which filed for bankruptcy on Jan. 11 (*Greenwire*, Jan. 14).

The Powder River Basin Resource Council and the Western Organization of Resource Councils, landowner advocacy groups, filed a complaint with Wyoming regulators in December questioning whether Arch was eligible for self-bonding.

State regulators, citing the company's 2014 year-end financial reports, said Arch subsidiary Arch Western Resources LLC was in good standing for self-bonding.

Now that Arch has filed for bankruptcy, OSMRE asked Wyoming to reassess bonding as "the guarantors's assets are being used by the parent company as collateral for secured corporate debt."

The letter lists a series of Arch mines with self-bonded liabilities -- Black Thunder, Medicine Bow, EDC/Vanguard, Seminoe II, Coal Creek, Izita and Carbon Basin.

Arch executives say reclamation activities are ongoing, even under bankruptcy. "We fully expect to continue our award-winning reclamation practices, and to reclaiming the land to the highest value," spokeswoman Logan Bonacorsi told the *Casper Star-Tribune*.

Alpha Natural Resources

OSMRE's other letter questions Alpha Natural Resources Inc. bonding obligations.

Last year, Wyoming DEQ said Alpha was no longer eligible for self-bonding and ordered the company to post about $411 million in new financial assurances for its Belle Ayr and Eagle Butte mines.

The company challenged the determination. Wyoming and Alpha then worked out a deal, putting the state ahead of other creditors for $61 million in liabilities in case the company folded in exchange for a hold on bonding enforcement until bankruptcy proceedings were finalized.

"The fact that Alpha has not filed a replacement bond or collateral of any sort, and the fact that Alpha continues to extract coal, OSMRE has reason to believe a violation of the Wyoming Approved State program may exist," OSMRE wrote in its letter.

Alpha leaders have said the deal with Wyoming, approved by a federal bankruptcy court judge, allows for "responsible" mining operations to continue during the company's restructuring.

Wyoming Gov. Matt Mead (R) said regulators were reviewing the letters, but he believed his state followed SMCRA when making bonding decisions for Alpha and Arch, according to the *Star-Tribune*.

With coal generating roughly $1 billion for the state, Mead said, "It puts the state in a position where we want to keep those mines open, but we can't do that if the state has to pay for reclamation."

Wyoming is considering low-cost environmental protection techniques, Mead said, including creating lakes at former mine sites.

Shannon Anderson, a lawyer for the Powder River Basin Resource Council, dismissed the solution, arguing making lakes would not be compliant.

"It's exactly what SMCRA tried to prevent," she said. "It's this race to bottom, friendly regulators giving companies excuses."

State regulators are scrambling in "uncharted territory" with coal's quick downfall just years after a boom for the industry, said Anderson.

"The problem is by the time you see the warning signals, it's probably too late to start enforcing," she said. "You've got to have some ability to react when the situation changes."

The most important thing now, she said, is to recognize the problem is permanent and not cyclical. "There were a lot of bad bets and miscalculations on the part of the industry," Anderson said. "And the workers and the taxpayers are going to pay for it."

ELECTRIC VEHICLES:

U.S. won't hit 1M plug-in goal until 2020 -- Moniz

Published: Monday, January 25, 2016

U.S. electric vehicle sales may not reach 1 million until 2020, Energy Secretary Ernest Moniz said Thursday, a prediction well behind President Obama's goal of hitting that benchmark by 2015.

Moniz said low prices at the gasoline pump have negatively affected sales of electric vehicles.

In 2008, with oil prices averaging $4 a gallon, Obama set a goal of placing 1 million electric vehicles on the road by 2015, a goal he revisited during his 2011 State of the Union address.

With gas prices tumbling to an average of $2 a gallon, only 400,000 electric cars have been sold to date (*Greenwire*, Jan. 20).

Last year, electric vehicle sales dropped 6 percent over the previous year despite the emergence of about 30 plug-in models.

Moniz said lowering battery costs is "absolutely critical" to increasing sales. As it stands, electric models often cost $8,000 to $10,000 more than gasoline-powered cars.

Despite challenges, Moniz said the future of electric vehicles "remains extremely bright" (David Shepardson, Reuters, Jan. 21). **-- AK**

FEDERAL WORKFORCE:

Obama creates bureau to vet security clearances

Kevin Bogardus, E&E reporter

Published: Monday, January 25, 2016

The Obama administration announced Friday a dramatic overhaul of the background investigation and security clearance process for federal employees.

The administration will create a new entity called the National Background Investigations Bureau. It will absorb the Federal Investigative Services, which conducts roughly 95 percent of the federal government's background investigations, including more than 600,000 security clearance investigations per year.

Headquartered in Washington, D.C., the new bureau will be stood up by interagency staff and housed in the Office of Personnel Management, reporting to that agency's director.

The Department of Defense will be responsible for designing, building, securing and operating NBIB's information technology systems. The president plans to ask for $95 million in his fiscal 2017 budget request to help develop those computer systems.

In addition, the administration will establish a "credentialing executive agent" that will oversee clearance policies across the government, a task that is now shared by several agencies.

"We are proud of the collaborative effort of the interagency team that helped identify these critical reforms. And we are committed to protecting the security of not only our systems and data, but also the Personally Identifiable Information of the people we entrust with protecting our national security," said several administration officials, including Director of National Intelligence James Clapper and acting OPM Director Beth Cobert, in a blog post on OPM's website Friday.

OPM has been under scrutiny since last year for a massive data breach of federal employees' personal information. The office found that private data from its background investigations was hacked, affecting about 21.5 million people (*E&E Daily*, July 10, 2015).

Since then, the administration has worked to improve agencies' cybersecurity, resulting in the creation of NBIB and shifting more responsibility of the government's personnel computer systems over to the Pentagon.

The overhaul of the background investigation process didn't appease OPM's critics on Capitol Hill.

"Simply creating a new government entity doesn't solve the problem. The administration needs to undertake meaningful reforms to protect citizens' most sensitive personal information," said Rep. Jason Chaffetz (R-Utah), chairman of the House Oversight and Government Reform Committee, in a statement Friday.

"Today's announcement seems aimed only at solving a perception problem rather than tackling the reforms needed to fix a broken security clearance process," he said.

DOE:

Nuclear workers fear policy change will deny their benefits

Published: Monday, January 25, 2016

Nuclear workers exposed to radiation on the job worry a recent federal directive to streamline claims may harm their chances of receiving benefits if their health worsens.

Under a 2014 directive, federal claims examiners are ordered to assume workers at Department of Energy nuclear facilities have not had significant exposures to toxins since 1995 "in the absence of compelling data to the contrary."

A recent report by the National Institute for Occupational Safety and Health casts doubt on the assumption, finding workers at an Ohio uranium enrichment plant were exposed more recently than 1995 (*Greenwire*, Jan. 8).

For workers like Abelardo Garza, who was working near tanks containing toxic sludge at the Hanford Nuclear Reservation in Washington state last year, the policy change is an ominous sign.

Garza was hospitalized after inhaling a strange odor at the site, the fourth time that has happened to him in five years.

Garza fears he may become one of the more than 107,000 Americans diagnosed as having cancers and other diseases stemming from radiation exposure related to nuclear weapons development (*Greenwire*, Dec. 11, 2015).

With the new directive, Garza said he's worried the federal government is planning new ways to deny him benefits.

Some advocacy groups have called for Congress to intervene and change the standard.

"My own personal opinion," said Terrie Barrie, a founding member of the Alliance of Nuclear Worker Advocacy Groups, "is they're trying to control the costs, because it is expensive" (Wise/Hotakainen/Matt, McClatchy, Jan. 22). **-- SP**

METHANE LEAK:

Regulators call for study on health risks

Published: Monday, January 25, 2016

California air quality regulators voted Saturday to require the utility responsible for a pipeline rupture and gas leak to conduct an independent study on the health effects of the leak.

The methane leak in Aliso Canyon, in the Los Angeles neighborhood of Porter Ranch, began in October and has not stopped. The utility responsible, Southern California Gas Co., expects the rupture to be repaired in the coming months.

Officials with the South Coast Air Quality Management District said they may require more action in the future from the utility, but the investigation into the health side effects is the first step.

Porter Ranch residents have experienced headaches, nosebleeds and respiratory issues since the leak began.

While the utility is working to stop the methane leak, many residents and advocates have called for the 3,600-acre facility, where surplus gas is pumped underground, to be shut down entirely (*E&ENews PM*, Jan. 15).

Many community members who attended the hearing Saturday were disappointed with the results. They felt more should be done in addition to the health study.

Tim O'Connor, director of California oil and gas for the nonprofit Environmental Defense Fund, said AQMD's ability to take action is limited by an overlap of various government agencies (Paula Lehman, Reuters, Jan. 23). **– AS**

POWER PLAN HUB:

Comments warn EPA against patchwork effect of federal plan

Emily Holden and Rod Kuckro, E&E reporters

Published: January 25, 2016

As a lower court rejected requests to halt the Clean Power Plan last week, U.S. EPA accepted thousands of comments on its model carbon trading rules and federal backup plan for states that don't comply.

EPA officials have said they intend to finalize the model trading rules in the summer before the Sept. 6 deadline for states to submit compliance plans or ask for two-year extensions. The agency will not produce a final federal plan unless a state requires one.

POWER PLAYS

Each Monday, **Power Plays** previews upcoming moves on the way to Clean Power Plan compliance and recaps the week's developments.

One key question that surfaced from the comments is whether EPA's federal plan would employ rate- or mass-based standards for all noncompliant states.

Rate-based standards require a state's power fleet to reach an average level of carbon emissions, while mass-based standards cap emissions outright. States with differing standards are not allowed to operate in the same carbon trading regimes.

Environmentalists, industry groups and at least some states called on EPA to not lock all states into either a rate- or mass-based compliance option through the federal plan, *Greenwire*'s Amanda Reilly reports (*Greenwire*, Jan. 22).

Stay tuned this week for more analysis on the comments from *ClimateWire* and *EnergyWire*.

In events, today:

- Nevada's Division of Environmental Protection holds a second community information session on the Clean Power Plan in Reno.

- The Environmental and Energy Study Institute hosts an event on environmental justice under the Clean Power Plan at 11 a.m. in the Rayburn House Office Building.

Wednesday:

- The Center for Strategic and International Studies has a discussion about the 2016 outlook for the rule at 10 a.m. Speakers include the Rhodium Group, the Georgetown Climate Center, Van Ness Feldman and *ClimateWire* reporter Emily Holden.

- Resources for the Future and the Electric Power Research Institute host a seminar at 12:30 p.m. with environment and utility experts speaking about the comments EPA has received on the federal implementation plan and model trading rules.

- Colorado's Department of Public Health & Environment has a meeting in Brush focusing on rural low-income communities and the Clean Energy Incentive Program.

Thursday and Friday:

- Duke University's Nicholas Institute for Environmental Policy Solutions holds a workshop at the Southeast Energy and Environmental Leadership Forum in Orlando, Fla.

In case you missed it:

- A federal appeals court declined to halt the Clean Power Plan, and challengers vowed to take the battle to the Supreme Court (*ClimateWire*, Jan. 22).

- The Federal Energy Regulatory Commission's sole Republican member, Tony Clark, is stepping down. In an exclusive interview with E&E Publishing, Clark warned about Clean Power Plan costs and offered states advice (*EnergyWire*, Jan. 22).

- At least 20 states are considering carbon trading regimes to comply with the regulation (*ClimateWire*, Jan. 19).

- Even in West Virginia, stakeholders urge state leaders to craft a compliance plan that includes carbon trading (*ClimateWire*, Jan. 21).

- The Midwestern grid operator finds that capping carbon would be the least costly way to comply with the EPA rule (*EnergyWire*, Jan. 21).

- Indiana's governor is carefully weighing options for the Clean Power Plan (*EnergyWire*, Jan. 21).

- The U.S. grid monitor outlined challenges facing states as they comply with EPA standards (*EnergyWire*, Jan. 21).

Reporter Amanda Reilly contributed.

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Industry, enviros spar over carbon trading methods

The nation's power companies are advocating for a large and flexible carbon trading system under a federal plan to cut greenhouse gas emissions, but environmental advocates say certain restrictions are needed to ensure the best climate outcomes.

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New mapping reveals bulk of tree loss within natural forests

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5.CALIFORNIA:

State insurance commissioner urges coal divestment

6.EMISSIONS:

Study blames rich world for poor countries' nitrogen footprint

7.STATES:

Idaho Power CEO touts renewables, wary on storage

INTERNATIONAL

8.AUSTRALIA:

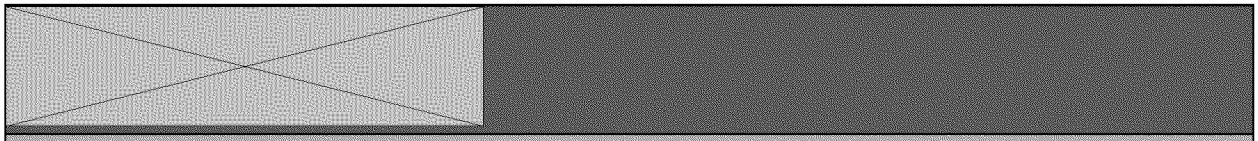
You're wrong, Mr. Abbott: Researcher debunks politician on climate

9.CANADA:

PM Trudeau scolds Leonardo DiCaprio on oil 'greed'

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Policy Analysis

Damages and expected deaths due to excess NOx emissions from 2009-2015 Volkswagen diesel vehicles

Stephen P. Holland, Erin Mansur, Nicholas Muller, and Andrew Yates

Environ. Sci. Technol., **Just Accepted Manuscript** • DOI: 10.1021/acs.est.5b05190 • Publication Date (Web): 31 Dec 2015

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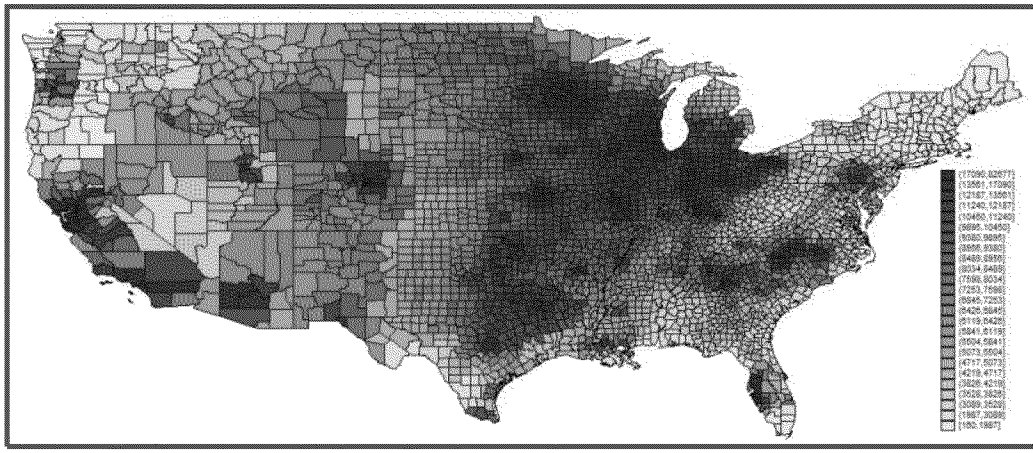
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Excess꿹 □ηNOx꿹 □η Emissions꿹 □η	Excess꿹 □ηExpected꿹 □η Deaths꿹 □η	Excess꿹 □ηDamages꿹 □η
45,093꿹 □ηtons꿹 □η	46.14꿹 □η	$430꿹 □ηmillion꿹 □η

ACS Paragon Plus Environment

Damages and expected deaths due to excess NO_X emissions from 2009-2015 Volkswagen diesel vehicles

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December 30, 2015

Abstract

We estimate the damages and expected deaths in the United States due to excess emissions of NO_X from 2009-2015 Volkswagen diesel vehicles. Using data on vehicle registrations and a model of pollution transport and valuation, we estimate excess damages of $430 million and 46 excess expected deaths. Accounting for uncertainty about emissions gives a range for damages from $350 million to $500 million, and a range for excess expected deaths from 40 to 52. Our estimates incorporate significant local heterogeneity: e.g., Minneapolis has the highest damages despite having fewer noncompliant vehicles than thirteen other cities. Our estimated damages greatly exceed possible benefits from reduced CO_2 emissions due to increased fuel economy.

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VW FOIA, EPA 06/20/2017 2017-FFP_038183

1 Introduction

Since the 1970s the United States Environmental Protection Agency (EPA) has regulated air pollution emissions from vehicles. Vehicles must first pass emissions tests to be certified for sale, and they generally must also pass annual inspections for continued use. This two-pronged approach might seem sufficient. However, recent events reveal the vehicle manufacturers may not be in compliance.

In September 2015, the EPA issued a notice of violation to the Volkswagen Group of America concerning excess emissions from certain 2009-2015 model year Volkswagen diesel powered vehicles (EPA 2015). These vehicles utilized a defeat device that detects when the vehicle is under emissions testing and lowers NO_X emissions during the test. More specifically, Volkswagen installed software in the electronic control module that analyzed various data including \the position of the steering wheel, vehicle speed, the duration of engine's operation, and barometric pressure" (EPA 2015). When the data indicated that it was likely that the vehicle was undergoing emissions testing, then the software temporarily increased the performance of the emission control system to reduce emissions from the level found in normal operation. A scientific study of two vehicles equipped with the defeat device determined that on-road emissions of NO_X were significantly higher than the EPA standard (Thompson et al. 2014). These defeat devices have been installed in approximately 480,000 Volkswagen diesel vehicles sold in the U.S. (EPA 2015). We estimate the damages and expected deaths due to excess NO_X emissions, accounting for the fact that these effects vary depending how far, and where, the vehicles are driven. Additional Volkswagen vehicles may also have defeat devices (the Supporting Information discusses the ongoing investigation).

2 Data and Methods

Volkswagen employs two different exhaust after-treatment systems as part of the overall NO_X emissions control system in its diesel engines. The lean NO_X trap (LNT) employs a special coating in the catalytic converter to absorb NO_X. The selective catalytic reduction (SCR) injects urea into the catalytic converter where it neutralizes the NO_X. Thompson et

VW FOIA, EPA 06/20/2017 2017-FFP_038184

al. (2014) study actual on-road emissions of NO_X from Volkswagen vehicles equipped with these technologies as well as one other vehicle (Table 1). The two Volkswagen diesel vehicles emit signi□cantly more NO_X than the EPA standard under all driving routes. (The standard speci□es NO_X, but the ratio of NO_2 to NO may play an important role. See Jacobsen et al. 2004.) The vehicle with LNT technology averaged 1.235 g/km when driven in urban areas and 0.614 when driven on highways. For the vehicle with SCR technology, the values are 0.757 and 0.334, respectively. The EPA standard is 0.043. In contrast, the third vehicle tested, BMW, is close to the standard.

Table 1: NO_X emissions during Driving Tests

Route	Vehicle A 2012 Jetta Sportwagen LNT	Vehicle B 2013 Passat SCR	Vehicle C 2012 BMW X5 xDrive 35d SCR
Highway	0.614 (0.283)	0.344 (0.096)	0.048
Urban (LA)	0.989 (0.114)	0.809 (0.075)	0.070 (0.041)
Urban (San Diego)	1.480 (0.335)	0.675 (0.057)	
Urban (San Fran)		0.815	0.053 (0.021)
Average Urban	1.235 (0.350)	0.757 (0.088)	0.062
EPA Standard	0.043	0.043	0.043

Notes: Average NO_X emissions in grams per km (standard deviations in parentheses) during driving tests. All data except Average Urban row is from Table 4.3 in Thompson et al. 2014. Average Urban row is calculated from the three urban tests. LNT stands for lean NO_X trap. SCR stands for urea based selective catalytic reduction. EPA standard is 0.043 g/km. Vehicles were not identi□ed in Thompson et al. (2014), but they were identi□ed in the EPA notice of violation letter. We veri□ed this identi□cation by cross referencing fuel economy data. Numbers in bold are used in our calculations.

To determine the geographic distribution of emissions from Volkswagen vehicles, we need an estimate of how far, and where, the vehicles were driven. Information from the 2009 National Household Transportation Survey and other Federal Highway Administration (FHWA) data reveal three salient features of miles driven per vehicle. First, miles driven by the average vehicle changes over time. Second, newer vehicles are driven more miles per year than older vehicles. Third, miles driven di♂ers across states.

Combining the □rst two features enables us to determine the number of miles driven per year by the model year, as shown in Table 2. See the Supporting Information for details of this calculation. As a consistency check on the miles driven calculation, we also collected

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actual odometer readings for used Volkswagen diesels from Cars.com, which is a popular used car internet site. Compared with the FHWA data, the odometer miles are a bit larger for older model years, and a bit smaller for more recent model years (Table 2). Part of the difference between these measures is that the estimates based on FHWA data use the full 2015 calendar year, while the odometer reading is as of September 30, 2015 for all model years.

Table 2: Two Estimates of Miles Driven by Model Year

Model Year	FHWA data	Used Car Odometer
2009	95,710	103,425
2010	84,929	90,752
2011	72,322	78,099
2012	59,765	61,197
2013	46,315	41,361
2014	30,878	21,724
2015	15,438	7,122

Notes: Used car odometer data taken from Cars.com on September 30, 2015 for used Volkswagen vehicle models and years listed in Table 3. The scope of the search was the entire United States.

The values in Table 2 are estimates of the average number of miles driven by an average vehicle in the average location in the United States. We use additional FHWA data to incorporate the third salient feature of miles driven (it differs across states). For each state we determine the increase or decrease in miles per vehicle relative to the U.S. average (see Table S2 in the Supporting Information). For example, vehicles driven in Alabama are driven 1.15 times farther than the average vehicle.

To answer the question of where the vehicles were driven, we use registration data obtained from IHS Automotive. These provide a snapshot of registrations for all Volkswagen diesel vehicles with the defeat device (Table 3). The EPA press release stated that the defeat devices were installed in 482,000 Volkswagen diesel vehicles sold in the United States. The IHS data indicates that 447,549 Volkswagen diesel vehicles with the appropriate model and model years were registered as of July 1, 2015. One reason for this discrepancy is that some of the vehicles would have been retired from use over time. Another is that some of the

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vehicles were registered after July 1, 2015. With the exception of the Passat, vehicles in the 2009-2014 model years were equipped with the LNT technology. For the 2015 model year, all vehicles were equipped with a modified SCR technology. We do not have emission testing results for the modified SCR technology, so we assume emissions are the same as with the previous SCR technology. The number of miles driven by 2015 model year vehicles is small relative to the overall miles driven by all vehicles in this study, so the effect of any inaccuracy in this assumption is likely to be small.

The registration data give the county of registration for each vehicle. The vast majority of the vehicles (86 percent) are registered in urban counties. The states and Metropolitan Statistical Area (MSAs) with the most registrations are given in Table 4.

Table 3: Volkswagen Diesel Registrations and NO_X Technology

	Model Years							
Model	2009	2010	2011	2012	2013	2014	2015	Total
Audi A3		2067	3602	3730	1765		2041‡	13,205
Beetle					6327	3821	467‡	10,615
Golf		4203	8682	10,820	8397	3100	7263‡	42,465
Golf Sportwagen							2339‡	2,339
Jetta	35,941	50,843	40,850	49,807	49,007	42197	8451‡	277,096
Passat				17,949‡	39,005‡	32,442‡	12,433‡	101,829
Total	35,941	57,113	53,134	82,306	104,501	81,560	32,994	447,549

Notes: ‡ indicates SCR technology, all other vehicless have LNT technology. Vehicle and model year information from EPA 2015. Registrations are as of July 1, 2015, and are obtained from IHS Automotive. Jetta includes Jetta Sportwagen, Beetle includes Beetle convertible.

Because we only have a snapshot of the vehicle registrations, we assume a vehicle stays registered in the county for the entire period it is in service. We assume that a vehicle registered in an urban county is driven only within the counties that make up the relevant MSA, with the number of miles driven in each county determined by the distribution of VMT across the counties. Note that MSAs include suburban communities. A vehicle registered in a rural county is driven only within the rural counties of the state, again determined by relative VMT. This procedure may lead to an underestimation of damages, as vehicles from rural counties may be more likely to be driven into urban counties than the reverse. We obtained VMT per county from the EPA Motor Vehicle Emission Simulator. This procedure

VW FOIA, EPA 06/20/2017 2017-FFP_038187

allows us to determine the geographic distribution of miles driven.

Combining miles driven with the emissions rates from Table 1 gives us allowed and actual emissions (Table 4). For rural counties we use the highway values from Table 1. For urban counties we use the average urban values from Table 1. California has 65,000 registered Volkswagen diesels with defeat devices, and these vehicles have driven over 3 billion miles. If they had met the EPA standard, then they would have emitted 237 tons of NO_X. But actual emissions are estimated to be over 6000 tons. The difference between these two numbers is the excess emissions from use of the defeat devices.

We use the AP2 air pollution integrated assessment model to connect excess ground-level NO_X emissions to changes in ambient concentration of pollutants and associated deaths and monetary damages (Muller and Mendelsohn, 2009; Muller, 2011; Muller 2014). The main component of damages is human mortality, but AP2 also accounts for morbidity, crop and timber yields, degradation of buildings and material, and reduced visibility and recreation. For human mortality, AP2 uses results from Pope et al. (2002) to specify the effect of $PM_{2:5}$ exposure on adult mortality rates and results from Bell et al. (2004) to specify the effect of O_3 exposure on all-age mortality rates. We assume the NO_2:NO ratio is the same for all emission sources. Jacobsen et al. (2004) show that this may lead to a downward bias in estimated damages, because diesel vehicles may have higher ratios than gasoline vehicles.

The AP2 model employs a modified Gaussian plume air quality model to estimate annual and seasonal average air pollution concentrations (Turner, 1994; Muller and Mendelsohn, 2007). To calculate the contribution of NO_X emissions to ambient concentrations of ammonium nitrate, the model first estimates the concentrations of nitrate (NO_3) resulting from NO_X emissions by county for 2011. This calculation assumes a NO_X to NO_3 conversion rate constant of 2% per hour and dry and wet deposition velocities of 1 cm/s and 0.0003*Precipitation (cm/s), respectively. The model also calculates ambient concentrations of ammonium (NH_4) and sulfate for each county. In a given location, the model estimates the equilibrium concentrations of ammonium sulfate and ammonium nitrate by assuming that ammonium preferentially reacts with ammonium sulfate. Remaining ammonium is available to react with nitrate in order to form ammonium nitrate which is then counted as $PM_{2:5}$. Because the structure of the air quality model is Gaussian, it does not explicitly treat meteorological

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Table 4: Volkswagen Diesel Registrations, Estimated Miles Driven, and NO_X Emissions

	Registrations	Miles Driven (Millions)	Allowed Emissions (Tons)	Actual Emissions (Tons)
United States	447,549	24,822	1,893	46,986
Top States				
California	64,816	3,102	237	6,268
Texas	33,588	2,289	174	4,325
Florida	25,403	1,447	110	2,832
New York	20,040	1,166	69	1,701
Pennsylvania	19,772	1,023	71	1,739
North Carolina	14,441	949	84	2,038
Illinois	19,953	944	89	2,230
Washington	18,282	885	63	1,607
Virginia	14,555	825	24	568
Maryland	12,234	712	49	1,263
Top MSAs				
Chicago, IL	11,466	545	42	1,079
Los Angeles, CA	11,025	527	40	1,087
Houston, TX	7,674	521	40	1,044
Washington, DC	9,013	520	40	1,070
Atlanta, GA	6,426	411	31	830
Seattle, WA	8,345	408	31	856
San Diego, CA	7,985	383	29	787
Portland, OR	7,366	381	29	796
Dallas, TX	5,265	369	28	744
Baltimore, MD	6,265	361	28	738
Phoenix, AZ	6,002	341	26	685
New York, NY	6,126	340	26	699
Minneapolis, MN	5,593	305	23	630
Austin, TX	4,128	292	22	601
Philadelphia, PA	5,584	288	22	592
Oakland, CA	5,809	286	22	594
San Francisco,CA	5,572	275	21	580
Riverside, CA	5,803	257	20	512
Denver, CO	4,816	255	19	531

Notes: \Registrations" are Volkswagen diesel registrations as of July 1, 2015 from IHS Automotive. \Miles driven" (in millions) is estimated miles driven by all registered vehicles based on the vintages of the vehicles and state-level driving propensity. \Allowed Emissions" is tons of NO_X which would be allowed if the vehicles performed as required by the EPA standards. \Actual Emissions" is tons of NO_X based on estimated emissions rates from Thompson et al. (2014). \Top States" and \Top MSAs" determined by miles driven.

factors such as clouds. However, the model does use meteorological data in the estimation of the Gaussian equations.

Although the AP2 employs a reduced-form approach to air quality modeling, the predictions produced by the model are strongly positively correlated with ambient $PM_{2:5}$ monitoring data. Jaramillo and Muller (2015) report a battery of test statistics for the AP2 predicted baseline concentrations. Employing the performance evaluation criteria and goals set forth in Boylan and Russell (2006), Jaramillo and Muller (2015) show that, for ammonium nitrate, AP2 predictions generate mean fractional error (MFE) of less than 0.70 from 1999 to 2011 and mean fractional bias (MFB) of less than 0.20 in absolute value. The values for 2011 are an MFE of 0.68 and an MFB of 0.10. Total $PM_{2:5}$ ultimately drives the damage estimates since particular species of PM are not inputs to the mortality dose-response functions. Here, the AP2 model performs quite well in 2011 (MFE = 0.34; MFB = -0.22). Both are well within the model performance guideline proposed by Boylan and Russell (2006).

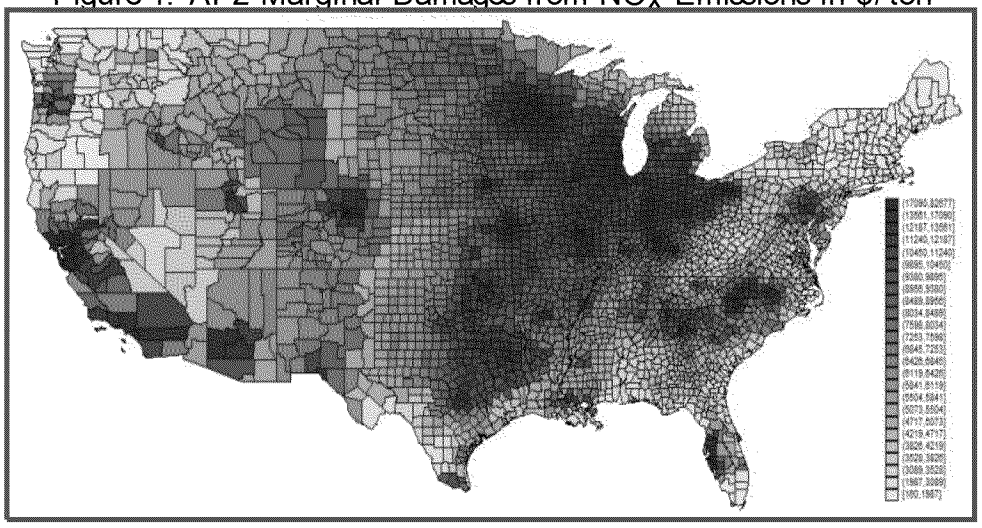
AP2 computes marginal damages by first using the 2011 EPA National Emissions Inventory (NEI) to estimate baseline concentrations of $PM_{2:5}$ and O_3. Exposures, physical effects (such as mortality risks), and monetary damages associated with baseline emissions are then estimated. Next, one ton of NO_X is added to a particular source's baseline emissions. The AP2 model then re-computes concentrations, exposures, physical effects, and monetary damages. Since the only change between the add-one-ton case and the baseline is the additional ton of NO_X, the change in damage across all counties receiving additional pollution is strictly attributable to that ton of NO_X emitted from the selected source. This difference comprises the marginal damage. Emissions are then reset to the baseline, and the AP2 model moves on to the next source location and repeats this simulation design. Figure 1, which was created by the authors from the AP2 model output, shows the full set of county-specific marginal damage estimates.

Because mortality effects dominate air pollution damages, one might expect damages to correlate with population. For NO_X this is not necessarily the case because the conditions under which NO_X forms $PM_{2:5}$ are non-linearly related to emissions of SO_2 and ammonia. NO_X damages tend to be higher nearby major sources of ammonia emissions. The area of elevated marginal damages through the Midwest, especially in Minnesota, is in part driven

VW FOIA, EPA 06/20/2017 2017-FFP_038190

by copious ammonia emissions from agricultural sources. This also explains higher marginal damages in California's Central Valley, the Carolinas, and Southeastern Pennsylvania.

Figure 1: AP2 Marginal Damages from NO_X Emissions in $/ton



We illustrate our calculation of damages and deaths due to the excess emissions of NO_X. Consider a 2010 Jetta registered in Fulton County, Georgia. The vehicle uses the LNT technology, and is driven in an urban area, so excess emissions (net of the EPA standard) in grams per mile are

$$e = (1{:}235g/km - 0{:}043g/km) \ddagger 1{:}62km/mile{:}$$

According to our FHWA data, the average 2010 vehicle has been driven 84,929 miles. From Table S2 in the Supplementary Information, we see that vehicles in Georgia are driven 1.18 times more than average. Fulton county is in the Atlanta MSA, which includes 28 counties. Let the marginal damages due to one gram of NO_X emissions (determined from AP2) in each county i in the MSA be denoted by d_i. Likewise, let the VMT in each county be denoted by v_i. Finally, let $v = P_i^{28} v_i$. Damages due to driving the vehicle over its lifetime to date is given by

$$84929(1{:}18)e \sum_{i}^{28} (d_i \ddagger v_i \sim v){:}$$

3 Results

Our baseline scenario uses FHWA data for miles driven, includes a state adjustment for the miles, uses the dose-response function for $PM_{2:5}$ given in Pope et al. (2002), and assumes that an urban vehicle is driven throughout the MSA as described above. Baseline results for allowed expected deaths and damages (what would have occurred if the vehicles had met the EPA regulations) and excess expected deaths and damages (the difference between actual and allowed) are given in Table 5. Values are expressed in 2014 dollars, and we do not discount damages across time. We find 46 excess deaths and $430 million in excess damages from driving all the vehicles with defeat devices from initial sale through 2015. These numbers are approximately 25 times their allowed counterparts. Approximately 88% of damages are due to $PM_{2:5}$. The remaining damages result from exposure to ambient O_3.

Table 5 also reports the top states and MSAs. The ranking by damages across states and MSAs largely corresponds to the ranking based on mileage in Table 4. However, the results also indicate the importance of local effects. For example, the Minneapolis MSA has the highest damages despite having fewer vehicles than thirteen other MSAs. This reflects the high marginal damages in the upper Midwest illustrated in Figure 1. Conversely, Washington, DC and New York, NY rank third and tenth in numbers of vehicles, but 28th and 49th in terms of damages, due to the low marginal damages in the Northeast. We stress that these damages and expected deaths are due to driving in the state or MSA, but do not necessarily occur there, as the pollution emitted in one place may spread and cause damages elsewhere.

We assess the sensitivity of our result to key parameters in seven additional scenarios (Table 6). First, three scenarios address our assumptions about mileage. The Odometer readings scenario employs used car odometer data rather than the FHWA data to determine miles driven by the average car. The No state adjustment scenario assumes that vehicles are driven the same amount in each state. The No MSA aggregation scenario assumes that a given vehicle is driven exclusively in the county in which it is registered. The results are not sensitive to assumptions about miles driven. Next, two additional scenarios assess assumptions in the AP2 model. The Alternative dose response scenario uses the dose response

VW FOIA, EPA 06/20/2017 2017-FFP_038192

Table 5: Damages and Expected Deaths From Excess NO_X Emissions

	Expected Deaths		Damages	
	Allowed	Excess	Allowed	Excess
United States	1.87	46.14	17.40	430.21
Top States				
California	0.54	13.95	5.30	137.13
Illinois	0.19	4.70	1.70	41.68
Texas	0.13	3.17	1.21	29.25
Minnesota	0.13	3.21	1.13	28.65
Wisconsin	0.07	1.77	0.68	16.05
North Carolina	0.07	1.70	0.65	15.50
Indiana	0.06	1.56	0.57	13.98
Arizona	0.06	1.38	0.52	13.07
Florida	0.05	1.32	0.48	11.96
Colorado	0.05	1.27	0.47	11.88
Georgia	0.05	1.11	0.41	10.00
Top MSA's				
Minneapolis, MN	0.11	2.99	1.02	26.59
Los Angeles, CA	0.10	2.50	0.99	25.80
Chicago, IL	0.10	2.57	0.91	22.74
Oakland, CA	0.09	2.36	0.85	22.26
Santa Ana, CA	0.09	2.20	0.84	21.65
San Francisco,CA	0.06	1.64	0.59	15.66
San Jose, CA	0.05	1.31	0.48	12.51
Phoenix, AZ	0.05	1.19	0.45	11.35
St. Louis, MO	0.05	1.20	0.41	10.55
Riverside, CA	0.04	0.98	0.38	9.56
Salt Lake City, UT	0.03	0.87	0.30	7.99
Milwaukee, WI	0.03	0.83	0.29	7.52
Austin, TX	0.03	0.76	0.27	7.03
Dallas, TX	0.03	0.75	0.27	6.94
Denver, CO	0.03	0.73	0.26	6.81
Sacramento, CA	0.03	0.70	0.26	6.77
Atlanta, GA	0.03	0.74	0.26	6.65
San Diego, CA	0.02	0.50	0.23	5.85
Portland, OR	0.02	0.55	0.21	5.42

Notes: Damages account for human mortality and morbidity, crop and timber yields, degradation of buildings and material, and reduced visibility and recreation. \Top States" and \Top MSAs" determined by excess damages.

VW FOIA, EPA 06/20/2017 2017-FFP_038193

for $PM_{2:5}$ given in Lepeule et al. (2012). This plausible alternative assumption doubles our estimates. The Alternative VSL scenario uses a $2 million Value of a Statistical Life (VSL) rather than the standard $6 million VSL employed by the EPA (both expressed in year 2000 dollars). The $2 million VSL is based on a meta-analysis of Mrozek and Taylor (2002) that focused entirely on revealed preference studies. Using it lowers the damage estimate considerably. Finally, two scenarios account for uncertainty in emissions rates from Thompson et al. (2014) reported in Table 1. The Low emissions rates scenario uses emissions rates which are one standard error below the mean reported emissions rates. The High emissions rates scenario uses emissions rates which are one standard error above the mean. These scenarios give a range of 40 to 52 deaths with damages from $350 to $500 million.

Table 6: Sensitivity: Damages and Expected Deaths From Excess NO_X Emissions

Scenario	Excess Emissions (Tons)	Excess Expected Deaths	Excess Damages (millions $2014)
Baseline	45,093	46.1	$430
Mileage adjustments			
Odometer readings	44,670	45.6	$425
No state adjustment	45,391	47.2	$441
No MSA aggregation	45,093	46.4	$432
Alternative dose-response	45,093	98.6	$861
Alternative VSL	45,093	46.1	$177
Low emissions rates	38,288	39.5	$368
High emissions rates	51,897	52.8	$492

Notes: \Odometer readings" uses data on used-car odometer readings rather than our estimate of miles driven from NWHA data. \No state adjustment" does not adjust mileage for di♂erential driving across states. \No MSA aggregation" assumes vehicles are driven only in their county of registration. \Alternative dose-response" uses a higher dose response function from Lepeule et al. 2012. \Alternative VSL" uses a lower VSL from Mrozek and Taylor (2002). \High" and \Low" emission rates are one standard error above and below baseline.

The economic analysis of enforcement, pioneered by Becker (1968), states that when regulatory enforcement is imperfect, □rms will properly internalize the external damages to society only if the expected cost of risking the □ne equals these damages: Prob ‡ Fine = Damages, where Prob is the expected probability of being □ned. It follows that □nes need to

VW FOIA, EPA 06/20/2017 2017-FFP_038194

208 belargerthandamages. We□ndtotaldamageslessthan $1billion. Onepreliminaryestimate
209 of EPA □nes is $18 billion (Bloomberg 2015). The initial stock market response proxies the
210 overall expected e♂ect of the scandal on Volkswagen's business. With concern about □nes
211 from additional countries and consumer response, Volkswagen's market capitalization fell by
212 over $40 billion from September 16 to October 2, 2015. Of course, the eventual □nancial
213 repercussions may not be clear for several years.

214 Defeat devices increase NO_X emissions but also allow the vehicles to have some combi-
215 nation of increased power and fuel economy. In testing the 2013 Volkswagen Passat TDI
216 over 20,000 miles, Edmunds found the average on-road MPG was 37.2 miles per gallon com-
217 pared to the EPA rating of 34 mpg (Edmunds 2015). So requiring Volkswagen to meet NO_X
218 standards is likely to lead to increased CO_2 emissions. In other words, the use of the defeat
219 devices led to a bene□t in terms of decrease CO_2 emissions. What is the value of this bene□t?
220 Suppose the current MPG is indeed 37.2 and meeting the NO_X standard reduces this to 34.
221 Based on the total mileage that we estimated for all Volkswagen diesel vehicles in the U.S.,
222 this change would result in 639 additional metric tons of CO_2 emissions, which would cause
223 $25.6 million in damages (see the Supporting Information for details of this calculation). In
224 fact, the MPG would have to be reduced to 14.4 for these damages from additional emissions
225 of CO_2 to be equal to our baseline value of $430 million damages from excess NO_X emissions.
226 It is implausible that the counterfactual MPG would be that low, thus damages from NO_X
227 emissions outweigh the bene□ts of reduced CO_2 emissions.

228 Although the situations di♂er, it is interesting to compare the defeat devices to other
229 prominent cases of defective vehicles. The defective GM ignition switch led to 124 deaths,
230 the Ford/Firestone tire blowout problem led to 271 deaths, and the GM pickup side gas
231 tank design led to between 100 and 400 deaths (New York Times 2015, Fortune 2015, Mother
232 Jones 2015). In these other cases, the deaths are all associated with accidents and identi□able
233 victims. Inthecaseofthedefeatdevices, thedeathsarestatistical, inthatincreasedexposure
234 to NO_X leads to increased risk of death. There are no easily identi□able victims. Nonetheless,
235 the number of deaths due to the defeat devices is comparable to the other cases, particularly
236 if we use the $PM_{2:5}$ mortality dose response function reported in Lepeule et al. (2012).

237 After our paper was submitted for publication, we became aware of a similar analysis by

VW FOIA, EPA 06/20/2017 2017-FFP_038195

Barrett et al. (2015). The main differences between their paper and ours are the following. We collected data on the actual county in which the vehicles were registered. Barrett et al. assumed \that the excess NOx emissions from the affected VW vehicles have the same spatial distribution as total NOx emissions from light duty diesel vehicles." They determined miles driven by using a light duty vehicle fleet model from the literature. We determined miles driven from FHWA data and, importantly, corroborated these results with actual milage figures from used vehicles. If the driving patterns of Volkswagen vehicles systematically differ from the average light duty vehicle, then the results in Barrett et al. may be biased. In contrast, our analysis would properly account for such differences. A final difference is the air pollution models. Barrett et al. employ adjoint modeling to derive sensitivities between NOx emissions and ambient concentrations of O3 and PM2.5, whereas AP2 derives source-receptor relationships based on a Gaussian plume model (Turner, 1994). Despite these differences, the results are fairly similar between the two papers. We estimate 46 excess expected deaths and $430 million in damages, the corresponding numbers in Barrett et al. are 59 deaths and $450 million in damages. Finally, Barrett et al. analyze both past excess emissions and future expected excess emissions under the assumption that the vehicles are not retrofitted to eliminate excess emissions. We did not consider the future excess emissions.

We have determined damages from excess NO_X emissions for approximately 450,000 Volkswagen vehicles registered in the United States. Up to 11 million Volkswagen vehicles with the defeat devices may have been sold worldwide. Damages from these vehicles depend on driving habits, air quality conditions, dose-response relationships, and values for mortality risk in other countries. More generally, actual on-road emissions for other vehicles may exceed the relevant emission standards. While clearly expensive, more comprehensive on road emission testing would shed light on the severity of this larger problem.

Acknowledgements

We would like to thank Frank Speizer for helpful comments.

Supporting Information

Miles driven, state correction, CO_2 bene□ts, and updates. This information is available free of charge via the Internet at http://pubs.acs.org/

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To: Fogarty, Johnpc[Fogarty.Johnpc@epa.gov]
Cc: Belser, Evan[Belser.Evan@epa.gov]; Iddings, Brianna[Iddings.Brianna@epa.gov]
From: Brooks, Phillip
Sent: Wed 1/27/2016 2:10:17 PM
Subject: FW: VW one pager
VW one pager.docx

John

This is the last transmission I have on the VW one-pager. Did you provide additional feedback on this? If so, I do not have it.

Adding Evan and Briana to expedite this.

From: Iddings, Brianna
Sent: Wednesday, January 20, 2016 1:49 PM
To: Fogarty, Johnpc <Fogarty.Johnpc@epa.gov>; Brooks, Phillip <Brooks.Phillip@epa.gov>
Cc: Chapman, Apple <Chapman.Apple@epa.gov>; Werner, Jacqueline <Werner.Jacqueline@epa.gov>; Belser, Evan <Belser.Evan@epa.gov>
Subject: RE: VW one pager

Hi John,

I've attached the edited one pager. Please let me know if it does not meet the formatting requirements, I'd be happy to make any other changes.

From: Fogarty, Johnpc
Sent: Wednesday, January 20, 2016 9:02 AM
To: Brooks, Phillip <Brooks.Phillip@epa.gov>
Cc: Chapman, Apple <Chapman.Apple@epa.gov>; Werner, Jacqueline <Werner.Jacqueline@epa.gov>; Belser, Evan <Belser.Evan@epa.gov>; Iddings, Brianna <Iddings.Brianna@epa.gov>
Subject: RE: VW one pager

Not quite – there's a format and style that these are supposed to follow (was in the original email, which I'll resend). It's supposed to be set up as a Q&A with bulleted answers and a background section that's also bulleted. I have taken a cut at setting it up with a question and a quick 3-bullet answer as an example (you have free reign on the question, so feel free to change what I've done as an illustration). I didn't go do that for the background – you all are in a better position than I to pull out the most essential items to keep it to a single page. Let me know if you have any questions. Thx!!

From: Brooks, Phillip
Sent: Tuesday, January 19, 2016 8:58 PM
To: Fogarty, Johnpc <Fogarty.Johnpc@epa.gov>
Cc: Chapman, Apple <Chapman.Apple@epa.gov>; Werner, Jacqueline <Werner.Jacqueline@epa.gov>; Belser, Evan <Belser.Evan@epa.gov>; Iddings, Brianna <Iddings.Brianna@epa.gov>
Subject: Fwd: VW one pager

John

Brianna pulled together the attached description of the VW case. Please let us know if you need something more?

Sent from my iPhone

Begin forwarded message:

> **From:** "Belser, Evan" <Belser.Evan@epa.gov>
> **Date:** January 19, 2016 at 6:20:41 PM EST
> **To:** "Brooks, Phillip" <Brooks.Phillip@epa.gov>
> **Cc:** "Werner, Jacqueline" <Werner.Jacqueline@epa.gov>
> **Subject: FW: VW one pager**
>
> Attached is a one-pager Brianna wrote at my request. How should we package this for the budget exercise you mentioned earlier today?
>
> -----Original Message-----
> From: Iddings, Brianna
> Sent: Tuesday, January 19, 2016 5:20 PM
> To: Belser, Evan <Belser.Evan@epa.gov>

Subject: RE: VW one pager

Evan, I've saved the document to OCE\AIR\TYPING.MSEB\VW\Briefings\VW one pager. I've also attached it here. Please let me know of any changes you would like me to make (or, if you don't mind, sending me a redline version of changes that you end up making).

-----Original Message-----
From: Belser, Evan
Sent: Tuesday, January 19, 2016 3:43 PM
To: Iddings, Brianna <Iddings.Brianna@epa.gov>
Subject: RE: VW one pager

No too detailed. Perhaps a specific mention of the concrete actions (NOVs, in-use letters), and a summary of the claims in the complaint would be great.

-----Original Message-----
From: Iddings, Brianna
Sent: Tuesday, January 19, 2016 2:43 PM
To: Belser, Evan <Belser.Evan@epa.gov>
Subject: RE: VW one pager

Evan,

How detailed would you like this? For example, should I mention the specific allegations in the complaint? What about anything involving CARB (their In-Use Compliance letters or rejection of VW's recall plan)?

-----Original Message-----
From: Belser, Evan
Sent: Tuesday, January 19, 2016 1:08 PM
To: Iddings, Brianna <Iddings.Brianna@epa.gov>
Subject: VW one pager

Brianna,

Could you throw together a one page synopsis of the VW matter? The EPA website about the case would be a good start. Very high level, and only content appropriate for the public.

We need this for some budget exercise. Could you do this today?

Thank you.

Evan Belser
Chief, Mobile Source Enforcement Branch
US EPA

To: Belser, Evan[Belser.Evan@epa.gov]; Van Eaton, Josh (ENRD)[Josh.Van.Eaton@usdoj.gov]
From: Engel, Bethany (ENRD)
Sent: Wed 1/27/2016 7:14:04 PM
Subject: RE: Multistate Letter to Judge Breyer and Director Mueller
canonb08186.enrd.doj.gov_Exchange_01-27-2016_13-49-42.pdf

We literally got it 10 min ago and I was just about to send it to you. They sent it to the wrong address, which is why it was delayed. See attached.

Bethany Engel

Trial Attorney

Environmental Enforcement Section

United States Department of Justice

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601 D Street NW, Room 6915

Washington, DC 20004

From: Belser, Evan [mailto:Belser.Evan@epa.gov]
Sent: Wednesday, January 27, 2016 2:12 PM
To: Van Eaton, Josh (ENRD) <JVanEaton@ENRD.USDOJ.GOV>; Engel, Bethany (ENRD) <BEngel@ENRD.USDOJ.GOV>
Subject: Fwd: Multistate Letter to Judge Breyer and Director Mueller

Have you seen a copy of the state letter yet? I heard you had not, but my friend in NY says you were copied.

Evan Belser

Chief, Mobile Source Enforcement Branch

US EPA

Begin forwarded message:

From: Brian Lusignan <Brian.Lusignan@ag.ny.gov>
Date: January 27, 2016 at 2:10:04 PM EST
To: "'Belser, Evan'" <Belser.Evan@epa.gov>
Subject: Multistate Letter to Judge Breyer and Director Mueller

Hi Evan,

Following up with our conversation today, I wanted to let you know that Josh Van Eaton and Bethany Engel at DOJ were CCed on the letter our multistate group sent to Judge Breyer and Director Mueller on January 22, 2016, and should be able to provide it to you. If either of them did not receive the letter, please have them follow up with our Office.

Thanks for taking the time to talk with me today.

Take care,

-Brian

Brian Lusignan

Assistant Attorney General

NYS Office of the Attorney General

Environmental Protection Bureau

The Capitol

Albany NY 12224-0341

(518) 776-2399

Please note the new phone number.

IMPORTANT NOTICE: This e-mail, including any attachments, may be confidential, privileged or otherwise legally protected. It is intended only for the addressee. If you received this e-mail in error or from someone who was not authorized to send it to you, do not disseminate, copy or otherwise use this e-mail or its attachments. Please notify the sender immediately by reply e-mail and delete the e-mail from your system.

STATE OF NEW YORK
OFFICE OF THE ATTORNEY GENERAL

ERIC T. SCHNEIDERMAN
ATTORNEY GENERAL

DAVID E. NACHMAN
SENIOR ENFORCEMENT COUNSEL
EXECUTIVE DIVISION

January 22, 2016

Via UPS Courier Service

The Honorable Charles R. Breyer
United States District Court
Northern District of California
San Francisco Courthouse
Courtroom 6 – 17th Floor
450 Golden Gate Avenue
San Francisco, CA 94102

The Honorable Robert S. Mueller III
Wilmer Cutler Pickering Hale & Dorr LLP
1875 Pennsylvania Avenue, NW
Washington, DC 20006

In re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation, MDL No. 2672 CRB – This Correspondence Relates To All Actions

Dear Judge Breyer and Director Mueller:

We write on behalf of a coalition of 46 states and the District of Columbia – 47 sovereign jurisdictions (the "States") that are diligently pursuing their investigation and potential claims relating to the design, importation, marketing and sale by Volkswagen, Audi and Porsche (collectively, "Volkswagen" or "VW") of diesel engine automobiles with illegal "defeat devices."[1] These devices concealed from consumers across the country and the relevant state and federal authorities that the vehicles were emitting up to 40 times more nitrogen oxide than they were permitted by law to emit. Below, we describe the claims the States are investigating and confirm the States' willingness to participate, as the Court and Settlement Master deem appropriate, in the early mediation process the Court has directed.

The information that is publicly available and already has been developed in the States' investigation provides reason to believe that Volkswagen committed violations of law on a massive scale in at least three areas of vital interest to all the States: (a) our interest in protecting consumers against deception and ensuring an honest commercial marketplace, as reflected in the Unfair and Deceptive Acts and Practices ("UDAP") statutes universally adopted by the States in one form or another, (b) our interest in protecting the environment and the health and safety of our citizens, as reflected in the States' environmental laws and regulations, including low

[1] The four states not currently part of this multi-state coalition are West Virginia, Texas and New Mexico, each of which has commenced litigation relating to these events in their respective state courts, and California, whose Air Resources Board ("CARB"), together with the U.S. Environmental Protection Agency ("EPA"), is in discussions with Volkswagen over possible recalls or "fixes" for the unlawful emissions control devices at issue.

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emission vehicle regulations and auto inspection and maintenance regimes, and the States' various rules forbidding tampering and requiring accurate and truthful reporting and record-keeping, and (c) our interest in upholding the States' regulatory requirements and protecting against systematic efforts to evade or subvert state law.

The States' UDAP statutes provide broad injunctive and remedial powers that authorize the States to seek, and courts to fashion, full and robust relief for the car owners who purchased or leased the affected diesel vehicles. Perhaps uniquely among the claimants in this matter, the States are well positioned to ensure that the remedial program for consumers ultimately agreed upon or directed by a court also recognizes the need to protect the environment and reduce excess emissions going forward. Accordingly, the States are crafting a comprehensive consumer relief proposal and, in the process, communicating with the relevant regulatory authorities as well as VW's own remedial consultant, Kenneth Feinberg.

In addition to the broad remedial authority they extend, the States' UDAP statutes provide for substantial penalties – potentially totaling, in aggregate, billions of dollars – designed to serve as both a specific deterrent against repetition by the offending parties as well as a general deterrent for any other party contemplating such a systematic and longstanding disregard of law as may have occurred here.

The States' environmental and inspection and maintenance laws and regulations also provide for substantial penalties – again, potentially totaling in the billions of dollars – for Volkswagen's apparent violations of: the federal EPA emissions standards accepted by many States; the "California standards" adopted into their respective regulatory schemes by a number of States under the authority of Section 177 of the Clean Air Act, 42 U.S.C. § 7507; and the anti-tampering and inspection and maintenance provisions of all or most States. It bears emphasizing that state regulation plays an important complementary role to the authority of the EPA and Department of Justice, and will need to be accommodated in any global resolution of the multiple legal and policy issues presented by Volkswagen's conduct.[2]

---

[2] Three would-be intervenors, in a proposed Complaint filed by Hausfeld LLP (*see* MDL No. 2672 CRB, Docket Number 540, Appendix D, Exhibit 1), purport to assert a citizens' suit claim under the Clean Air Act for the violation of the emissions standards adopted in California and incorporated by the "Section 177" states in their respective state laws and regulations. *See id.*, at ¶¶ 74-80. The relevance and practical effect of this purported claim is questionable. The enforcement of these states' emissions standards is a primary responsibility of the states themselves, *see* 42 U.S.C. § 7604(b)(1)(B), and the Clean Air Act does not allow suits by private citizens to limit the rights or interest of these states in enforcing their environmental laws in the manner and in the forum determined by the state in accordance with state law. Plainly, the Section 177 states, along with the States generally, *are* pursuing enforcement of their emissions standards (and other requirements) through investigations, extensive discovery and, as and when they deem appropriate, negotiations with or litigation against Volkswagen. Further, the viability of the proposed intervenors' Fifth Claim is doubtful. Among other things, they do not allege their requisite injury-in-fact from Volkswagen's violations of state emission standards, *see Friends of the Earth, Inc. v. Laidlaw Envt'l Servs.*, 528 U.S. 167, 180-181 (2000); *Washington Environmental Council v. Bellon*, 732 F.3d 1131 (9th Cir. 2013), and they have disregarded the jurisdictional 60-day waiting period (from December 11, 2015, the date of their only notice letter even referencing the applicable state emissions standards) required by the Section 304(b) of the Clean Air Act, 42 U.S.C. § 7604(b). *See Fried v. SunGard Recovery Servs.*, 900 F.Supp. 758, 764 (E.D. Pa. 1995), *citing Hallstrom v. Tillamook County*, 493 U.S. 20, 31 (1989).

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As the Court is aware, the States have not asserted federal claims and are not parties in this Multidistrict litigation. Currently, they are actively pursuing their investigation, including through the service of numerous subpoenas and civil investigatory demands directed at Volkswagen and third parties, the review of voluminous document productions and returns of service, upcoming testimony, discussions with other governmental entities, and discussions across multiple fronts with Volkswagen's representatives. The States are actively considering all appropriate enforcement options. Equally, however, the States are prepared to see whether a global negotiated resolution of the Volkswagen matter is possible on terms commensurate with the gravity of Volkswagen's conduct and that do justice to the legitimate interests of consumers, the States, the EPA, CARB and any other relevant government agencies.

Though distinct in a number of important ways, the interests and potential claims of the States are closely related to the claims that have been asserted by both the private and governmental parties in this Multidistrict litigation. We believe any truly global resolution of the claims asserted against Volkswagen in this litigation will need to address Volkswagen's exposure to the substantial remedial and penalties claims of the States. The States therefore welcome the Court's decision to appoint a Settlement Master to facilitate settlement discussions and, although not parties to these consolidated actions, stand ready to participate constructively in those discussions.

We have not filed this letter in the Master Docket, but have no objection if the Court or any party wishes to do so.

Respectfully yours,

David E. Nachman

and

Brendan T. Flynn
Assistant Attorney General
Office of the Connecticut Attorney General

Chris Barry-Smith
First Assistant Attorney General
Office of the Massachusetts Attorney General

Thomas Powers
Assistant Attorney General
Office of the Oregon Attorney General

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Cynthia Kinser
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John Nelson
Assistant Attorney General
Office of the Washington Attorney General

Cc (by courier):

Josh Van Eaton
Bethany Engel
U.S. Department of Justice

Elizabeth J. Cabraser
Lieff Cabraser Heimann & Bernstein – Plaintiffs' Lead Counsel

Jeffrey L. Chase
Ian Ceresney
Herzfeld & Rubin – for Volkswagen

Andrew Clubok
Kirkland & Ellis – for Volkswagen

Robert J. Giuffra Jr.
Sullivan & Cromwell – for Volkswagen

Michael Hausfeld
Hausfeld LLP

Nicklas Akers
Office of the California Attorney General

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STATE OF NEW YORK
OFFICE OF THE ATTORNEY GENERAL

ERIC T. SCHNEIDERMAN
ATTORNEY GENERAL

DAVID E. NACHMAN
SENIOR ENFORCEMENT COUNSEL
EXECUTIVE DIVISION

January 22, 2016

Via UPS Courier Service

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United States District Court
Northern District of California
San Francisco Courthouse
Courtroom 6 – 17th Floor
450 Golden Gate Avenue
San Francisco, CA 94102

The Honorable Robert S. Mueller III
Wilmer Cutler Pickering Hale & Dorr LLP
1875 Pennsylvania Avenue, NW
Washington, DC 20006

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Respectfully yours,

David E. Nachman

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Assistant Attorney General
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Office of the Massachusetts Attorney General

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Cynthia Kinser
Deputy Attorney General
Office of the Tennessee Attorney General

John Nelson
Assistant Attorney General
Office of the Washington Attorney General

Cc (by courier):

Josh Van Eaton
Bethany Engel
U.S. Department of Justice

Elizabeth J. Cabraser
Lieff Cabraser Heimann & Bernstein – Plaintiffs' Lead Counsel

Jeffrey L. Chase
Ian Ceresney
Herzfeld & Rubin – for Volkswagen

Andrew Clubok
Kirkland & Ellis – for Volkswagen

Robert J. Giuffra Jr.
Sullivan & Cromwell – for Volkswagen

Michael Hausfeld
Hausfeld LLP

Nicklas Akers
Office of the California Attorney General

120 Broadway, New York, NY 10271-0332 • Phone (212) 416-8390 • Fax (212) 416-6001 • David.Nachman@ag.ny.gov

To: Ex. 7 @vw.com]
Cc: Horton, Garett[Garett.Horton@vw.com]; Smith, Brett (EEO)[Brett.Smith@vw.com]; Liebner, Bernd[liebner.bernd@epa.gov]; Gordinier, Terry[Gordinier.Terry@epa.gov]
From: Sohacki, Lynn
Sent: Wed 1/27/2016 9:43:40 PM
Subject: RE: Parameters needed for W116RXX-0160

Thank you, Ex. 7

Just to confirm, for next week we will send communication to both Garett and Brett.

A meeting would be a great opportunity for our in-use team to meet you. Let me know a convenient time for a meeting.

Best regards,

Lynn Sohacki

From: Ex. 7 @vw.com]
Sent: Wednesday, January 27, 2016 4:30 PM
To: Sohacki, Lynn <sohacki.lynn@epa.gov>
Cc: Horton, Garett <Garett.Horton@vw.com>; Smith, Brett (EEO) <Brett.Smith@vw.com>
Subject: RE: Parameters needed for W116RXX-0160

Hello Lynn,

Thank you for the notification regarding the 2013 Audi A6 parameters. I will forward internally to get the information.

By the way, we now have Tobias's replacement. Garett Horton has rejoined our group here in

Auburn Hills after returning from a two year assignment in Germany. Garett can be your direct contact person for IUVP from now on. I have attached his information below. Unfortunately, Garett will be back in Germany next week, but we will send Brett Smith for the inspection. I will ask Brett to coordinate with John Hoban.

Garett Horton

In-Use Specialist

Volkswagen Group of America

Engineering and Environmental Office

3800 Hamlin Road

Auburn Hills, MI 48326

+1-248-754-4234

garett.horton@vw.com

Some point soon we would all like to head over to Ann Arbor and meet the EPA IUVP team. I think this would be a good chance for everyone to meet and talk about the overall program.

Thanks again for the notification and I will ask Garett to forward the document as soon as possible.

Ex. 7

Ex. 7

Engineering and Environmental Office

Volkswagen Group of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

Phone:
Cell: (
FAX: (
E-Mail: Ex. 7

From: Sohacki, Lynn [mailto:sohacki.lynn@epa.gov]
Sent: Wednesday, January 27, 2016 2:38 PM
To: Ex. 7 @vw.com>
Subject: Parameters needed for W116RXX-0160

Hi Ex. 7

The following vehicle will be brought in next week:

W116RXX-0160 (2013 Audi/A6) – VIN# Ex. 6, 0800 Vehicle Pick up on 2/1/16 (Monday)

Please fill the attached parameter sheet (including the second tab) and return it to me. When including instructions for disabling traction control, please include a description and location of the icon. Please include any testing protocol needed for testing vehicles with start-stop technology, ie. buckle seatbelts, lock hood, etc.

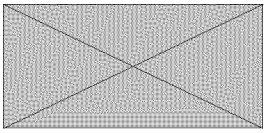
Thanks,

Lynn Sohacki

EPA, Compliance Division

734-214-4851

To: Bunker, Byron[bunker.byron@epa.gov]
From: Transportation Law360
Sent: Thur 1/28/2016 9:12:25 AM
Subject: Sen. Calls For Investigating Canadian Pacific-Norfolk Deal



TRANSPORTATION

Thursday, January 28, 2016

TOP NEWS

Sen. Calls For Investigating Canadian Pacific-Norfolk Deal

A West Virginia senator said Tuesday that the U.S. Senate should immediately investigate hedge fund-backed Canadian Pacific's plan to acquire Norfolk Southern, slamming the bid as an attempted takeover by Wall Street that could cost West Virginia jobs.

Bay Area Transpo Commission Commits $494M To Upgrades

The Metropolitan Transportation Commission said Wednesday it will provide $494 million to more than 20 transit agencies in the Bay Area to replace and upgrade transportation systems and vehicles, including $447 million in federal funds and $47 million collected from state-owned toll bridges.

Bosch Conducts Internal Probe Over VW Emissions Scandal

Robert Bosch GmbH said Wednesday it is conducting an internal probe related to Volkswagen AG's diesel vehicle emissions cheating, as the auto parts giant faces criticism for potentially being connected to the scandal that broke in September and has sparked international outrage.

New Orleans Gets OK To Take Down Confederate Monuments

A Louisiana federal judge on Tuesday cleared the way for New Orleans to take down four Confederate monuments, saying the landmark and historical groups challenging the removal haven't proven it's unconstitutional or that it's connected to a citywide streetcar expansion project.

Call For Participants: Transportation Law360's Advisory Board

Law360 is looking for avid readers of its Transportation publication to serve as members on its 2016 editorial advisory board.

ANALYSIS

COMPANIES

America Fujikura Ltd.

America Federati of Labor and Congres of Industria Organiza

America Society of Civil Enginee

Associat of Corpora Counsel

BMW Group

Bipartisa Policy Center

Busines Roundta

Canadia Pacific Railway Limited

Cobham

Latest Move To Ease Cuba Trade Could Be Limit For Obama

With the recent ease of restrictions on extending export financing for nonagricultural products to Cuba, attorneys say President Barack Obama may be reaching the limit of what he can do to open up trade with the island nation without getting Congress to tackle the embargo.

AUTOMOTIVE

EU Fines Mitsubishi, Hitachi €138M For Price-Fixing

The European Commission on Wednesday announced that it has imposed €138 million ($150 million) in fines on Mitsubishi Electric and Hitachi for fixing the prices of car engine parts in violation of EU antitrust rules.

Lyft To Pay $12M But Won't Classify Drivers As Employees

Lyft Inc. agreed Tuesday to pay $12.25 million and give additional job security to a proposed class of current and former drivers suing the ride-hailing service in California federal court, but stopped short of classifying drivers as employees.

Uber Loses Emergency Stay Bid In Driver Class Action

In a closely watched case, the Ninth Circuit on Wednesday denied a bid by Uber Technologies Inc. to pause a class action brought by drivers accusing the ride-hailing company of misclassifying them as independent contractors, despite nine pending appeals of various rulings made by the trial court.

'Uber Bill' Cruises In Fla. House, But Bumps May Lie Ahead

A bill that would create statewide rules in Florida to facilitate the legal operation of ride-hailing services such as Uber and Lyft passed easily in the state House of Representatives on Wednesday, but it might not have as smooth of a ride in the Senate.

BMW Can't Kill Suit Saying It Lies About Its Turbo Engines

A New Jersey federal judge on Wednesday kept alive a proposed class action accusing BMW of telling car buyers that a slew of its models contain TwinPower Turbo engines when the vehicles actually contain only a single turbocharger engine.

LOGISTICS

FedEx Dodges RICO Suit Over Package-Weight Fraud Claims

A New York federal court on Wednesday tossed an Internet retailer's Racketeer Influenced and Corrupt Organizations suit accusing FedEx Corp. of improperly calculating the weight of packages, saying that because FedEx and its subsidiaries are not sufficiently distinct, they cannot all be held liable for fraud claims.

COMPANIES

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Canadia Pacific Railway Limited

Cobham PLC

DENSO Corp.

FedEx Corpora

Florida Associat of Counties

Pa. Waste Co. Pays $683K To Resolve Enviro Violation Claims

A handful of Vogel Holdings Inc. units agreed to fork over $682,500 to settle alleged violations regarding waste treatment at their Butler and Mercer County facilities, also resolving an appeal of a landfill permit denial, the Pennsylvania Department of Environmental Protection announced Tuesday.

PEOPLE

Transportation Finance Lawyer Goes To King & Spalding

King & Spalding LLP said Tuesday it has brought on board a transportation finance lawyer who last worked as a Moore & Van Allen partner, adding him as a partner with the firm's expanding finance practice in Charlotte, North Carolina.

EXPERT ANALYSIS

Fixing US Infrastructure: New Model P3 Law A Good Start

The United States is facing an infrastructure crisis, and our needs are far greater than the government can provide on its own. Reducing the political risks associated with public-private partnerships by enacting legislation to bring transparency and predictability to the forefront of the process is an important step toward fixing America's crumbling infrastructure, say Stacia Wells and Robert Siegel at Bilzin Sumberg Baena & Axelrod LLP.

4 Ways To Improve The Business Intake Process

When executed properly, an efficient new business intake process can drive growth, minimize risk, and ensure new clients support a law firm's business and financial objectives. But determining how to streamline the NBI process is easier said than done, says Terrence Coan, leader of HBR Consulting LLC's information governance and risk management practice.

LEGAL INDUSTRY

4 Tips For Negotiating A Bigger Lateral Offer

For attorneys poised to jump to another firm, a little preparation can go a long way once they hit the negotiating table to hammer out a deal with their prospective employer. Here, legal recruiting experts offer some preparation tips to help lawyers negotiate a bigger and better lateral deal.

What's Keeping GCs Up At Night

Where are general counsels focusing their time and resources? According to a new survey of chief legal officers, the most pressing issues they're coping with today are ethics and compliance, regulatory challenges, and data privacy and security issues.

COMPANIES

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GCs' Embrace Of Legal Ops Refocuses In-House Departments

Legal operations functions are taking root in corporate law departments that are increasingly charged with running like businesses, freeing up general counsel to focus on the bigger strategic picture, according to a new survey of general counsel.

Female Attorneys Should Grab High-Profile Work: Bar Panel

Female lawyers looking to jump-start their careers must look beyond their firms and agencies for opportunities to build a wider professional profile and their personal brand, women law leaders said Wednesday at the New York State Bar Association conference in New York City.

The Practice Areas Earning UK Associates The Most Pay

A new report reveals a significant pay gap between UK associates involved in different practice areas, with the highest earners pulling in 42 percent more than those with the smallest paychecks. Here, find out which practice areas pay most.

Senate Easily Confirms Vazquez To NJ Federal Bench

The U.S. Senate confirmed attorney John M. Vazquez to the New Jersey federal bench Wednesday, the third federal judicial nominee confirmed this year after an unusually slow 2015 that saw only 11 nominees approved.

CIT Nominee Says AFL-CIO Role Won't Affect Impartiality

Stewart and Stewart partner Elizabeth J. Drake told lawmakers Wednesday that trade policy positions she had advocated for while previously working for the AFL-CIO should not disqualify her for the Court of International Trade bench, saying they would not affect her impartiality as a judge.

NY Judges Talk Up Commercial Division As Prime Forum

Multiple New York judges on Thursday spoke of the advantages of litigating business cases in the state's Commercial Division, as opposed to federal court, talking up the specialized unit's speed and experience in dealing with complex civil matters.

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MasterC Incorpor

McGraw Hill Financia Inc.

Mitsubis Electric Corp.

National Associat of Manufac

New York State Bar Associat

Norfolk Southerr Corpora

Robert Bosch GmbH

The America Law Institute

Twitter Inc.

Uber Technol Inc.

Volkswa

Waste Manage Inc.

LAW FIRMS

Akermar

Arent Fox

Arnold & Porter

Bilzin Sumber

Buchana Ingersoll

Carlson Legal Services

Davis Levin Livingsto

Dechert

Dunlap Fiore LLC

Gibson Dunn

Holland & Knight

Hunton & Williams

Jones Day

King & Spalding

Lichten Liss-Riordan

Moore & Van Allen

Ogletree Deakins

Parker Waichm

Paul Weiss

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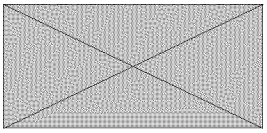
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To: Wehrly, Linc[wehrly.linc@epa.gov]
From: Transportation Law360
Sent: Thur 1/28/2016 9:34:34 AM
Subject: Sen. Calls For Investigating Canadian Pacific-Norfolk Deal



TRANSPORTATION

Thursday, January 28, 2016

TOP NEWS

Sen. Calls For Investigating Canadian Pacific-Norfolk Deal

A West Virginia senator said Tuesday that the U.S. Senate should immediately investigate hedge fund-backed Canadian Pacific's plan to acquire Norfolk Southern, slamming the bid as an attempted takeover by Wall Street that could cost West Virginia jobs.

Bay Area Transpo Commission Commits $494M To Upgrades

The Metropolitan Transportation Commission said Wednesday it will provide $494 million to more than 20 transit agencies in the Bay Area to replace and upgrade transportation systems and vehicles, including $447 million in federal funds and $47 million collected from state-owned toll bridges.

Bosch Conducts Internal Probe Over VW Emissions Scandal

Robert Bosch GmbH said Wednesday it is conducting an internal probe related to Volkswagen AG's diesel vehicle emissions cheating, as the auto parts giant faces criticism for potentially being connected to the scandal that broke in September and has sparked international outrage.

New Orleans Gets OK To Take Down Confederate Monuments

A Louisiana federal judge on Tuesday cleared the way for New Orleans to take down four Confederate monuments, saying the landmark and historical groups challenging the removal haven't proven it's unconstitutional or that it's connected to a citywide streetcar expansion project.

Call For Participants: Transportation Law360's Advisory Board

Law360 is looking for avid readers of its Transportation publication to serve as members on its 2016 editorial advisory board.

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Latest Move To Ease Cuba Trade Could Be Limit For Obama

With the recent ease of restrictions on extending export financing for nonagricultural products to Cuba, attorneys say President Barack Obama may be reaching the limit of what he can do to open up trade with the island nation without getting Congress to tackle the embargo.

AUTOMOTIVE

EU Fines Mitsubishi, Hitachi €138M For Price-Fixing

The European Commission on Wednesday announced that it has imposed €138 million ($150 million) in fines on Mitsubishi Electric and Hitachi for fixing the prices of car engine parts in violation of EU antitrust rules.

Lyft To Pay $12M But Won't Classify Drivers As Employees

Lyft Inc. agreed Tuesday to pay $12.25 million and give additional job security to a proposed class of current and former drivers suing the ride-hailing service in California federal court, but stopped short of classifying drivers as employees.

Uber Loses Emergency Stay Bid In Driver Class Action

In a closely watched case, the Ninth Circuit on Wednesday denied a bid by Uber Technologies Inc. to pause a class action brought by drivers accusing the ride-hailing company of misclassifying them as independent contractors, despite nine pending appeals of various rulings made by the trial court.

'Uber Bill' Cruises In Fla. House, But Bumps May Lie Ahead

A bill that would create statewide rules in Florida to facilitate the legal operation of ride-hailing services such as Uber and Lyft passed easily in the state House of Representatives on Wednesday, but it might not have as smooth of a ride in the Senate.

BMW Can't Kill Suit Saying It Lies About Its Turbo Engines

A New Jersey federal judge on Wednesday kept alive a proposed class action accusing BMW of telling car buyers that a slew of its models contain TwinPower Turbo engines when the vehicles actually contain only a single turbocharger engine.

LOGISTICS

FedEx Dodges RICO Suit Over Package-Weight Fraud Claims

A New York federal court on Wednesday tossed an Internet retailer's Racketeer Influenced and Corrupt Organizations suit accusing FedEx Corp. of improperly calculating the weight of packages, saying that because FedEx and its subsidiaries are not sufficiently distinct, they cannot all be held liable for fraud claims.

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Pa. Waste Co. Pays $683K To Resolve Enviro Violation Claims

A handful of Vogel Holdings Inc. units agreed to fork over $682,500 to settle alleged violations regarding waste treatment at their Butler and Mercer County facilities, also resolving an appeal of a landfill permit denial, the Pennsylvania Department of Environmental Protection announced Tuesday.

PEOPLE

Transportation Finance Lawyer Goes To King & Spalding

King & Spalding LLP said Tuesday it has brought on board a transportation finance lawyer who last worked as a Moore & Van Allen partner, adding him as a partner with the firm's expanding finance practice in Charlotte, North Carolina.

EXPERT ANALYSIS

Fixing US Infrastructure: New Model P3 Law A Good Start

The United States is facing an infrastructure crisis, and our needs are far greater than the government can provide on its own. Reducing the political risks associated with public-private partnerships by enacting legislation to bring transparency and predictability to the forefront of the process is an important step toward fixing America's crumbling infrastructure, say Stacia Wells and Robert Siegel at Bilzin Sumberg Baena & Axelrod LLP.

4 Ways To Improve The Business Intake Process

When executed properly, an efficient new business intake process can drive growth, minimize risk, and ensure new clients support a law firm's business and financial objectives. But determining how to streamline the NBI process is easier said than done, says Terrence Coan, leader of HBR Consulting LLC's information governance and risk management practice.

LEGAL INDUSTRY

4 Tips For Negotiating A Bigger Lateral Offer

For attorneys poised to jump to another firm, a little preparation can go a long way once they hit the negotiating table to hammer out a deal with their prospective employer. Here, legal recruiting experts offer some preparation tips to help lawyers negotiate a bigger and better lateral deal.

What's Keeping GCs Up At Night

Where are general counsels focusing their time and resources? According to a new survey of chief legal officers, the most pressing issues they're coping with today are ethics and compliance, regulatory challenges, and data privacy and security issues.

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GCs' Embrace Of Legal Ops Refocuses In-House Departments

Legal operations functions are taking root in corporate law departments that are increasingly charged with running like businesses, freeing up general counsel to focus on the bigger strategic picture, according to a new survey of general counsel.

Female Attorneys Should Grab High-Profile Work: Bar Panel

Female lawyers looking to jump-start their careers must look beyond their firms and agencies for opportunities to build a wider professional profile and their personal brand, women law leaders said Wednesday at the New York State Bar Association conference in New York City.

The Practice Areas Earning UK Associates The Most Pay

A new report reveals a significant pay gap between UK associates involved in different practice areas, with the highest earners pulling in 42 percent more than those with the smallest paychecks. Here, find out which practice areas pay most.

Senate Easily Confirms Vazquez To NJ Federal Bench

The U.S. Senate confirmed attorney John M. Vazquez to the New Jersey federal bench Wednesday, the third federal judicial nominee confirmed this year after an unusually slow 2015 that saw only 11 nominees approved.

CIT Nominee Says AFL-CIO Role Won't Affect Impartiality

Stewart and Stewart partner Elizabeth J. Drake told lawmakers Wednesday that trade policy positions she had advocated for while previously working for the AFL-CIO should not disqualify her for the Court of International Trade bench, saying they would not affect her impartiality as a judge.

NY Judges Talk Up Commercial Division As Prime Forum

Multiple New York judges on Thursday spoke of the advantages of litigating business cases in the state's Commercial Division, as opposed to federal court, talking up the specialized unit's speed and experience in dealing with complex civil matters.

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To: Rodgers, William (EEO)[William.Rodgers@vw.com]
Cc: Mazaitis, Vincent[mazaitis.vincent@epa.gov]
From: Snyder, Jim
Sent: Thur 1/28/2016 5:47:22 PM
Subject: RE: 2017 Audi Q7 confirmatory completed

Bill, I'm releasing the vehicle. You can make arrangements to pick it up.

Jim Snyder
Light-Duty Vehicle Group
Compliance Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: Pidgeon, Bill[pidgeon.bill@epa.gov]
Cc: Ex. 7 Snyder, Jim[Snyder.Jim@epa.gov]; Good, David[good.david@epa.gov]; Ex. 7 @vw.com]
From: Horton, Garett
Sent: Fri 1/29/2016 8:07:26 AM
Subject: RE: IUVP Data Request

Hi Bill,

Thanks for the instruction. I walked through that with a colleague, but the issue is to pull up test information a Verify Test ID is required which I unfortunately don't have.

I believe all of the submission reports were only stored in Tobias's Verify inbox, which we don't have access to.

If it'd be easier to pull out just our verify test numbers for MY10 High Mileage, as opposed to the table with all the results you sent we could work with that as well.

I appreciate all of the assistance,

Garett

From: Pidgeon, Bill [mailto:pidgeon.bill@epa.gov]
Sent: Wednesday, January 27, 2016 10:04 AM
To: Horton, Garett <Garett.Horton@vw.com>
Cc: Ex. 7 ; Snyder, Jim <Snyder.Jim@epa.gov>; Good, David <good.david@epa.gov>; Ex. 7 @vw.com>
Subject: RE: IUVP Data Request

Hi Garett,

You can gather the information by logging in to your MyCDX account and navigating to this page:

https://cdxnodengn.epa.gov/verify/lightduty/handOffReceipt.do

- click on "In-Use Verification Program (IUVP)"
- under "Request IUVP Report" there are two links:
  - Vehicle Information
  - Test Information

The help desk can help you from there, if you have questions:

Help Desk: (888) 890-1995

Email: evcishelpdesk@epacdx.net

Best wishes,

Bill

****

William M. Pidgeon
Mechanical Engineer
U.S. Environmental Protection Agency
Compliance Division, N69
2000 Traverwood Drive
Ann Arbor, MI 48105-2195
pidgeon.bill@epa.gov

Phone: 734-214-4416
Fax: 734-214-4869

From: Horton, Garett [mailto:Garett.Horton@vw.com]
Sent: Tuesday, January 26, 2016 12:10 PM
To: Pidgeon, Bill <pidgeon.bill@epa.gov>

Cc: Ex. 7; Snyder, Jim <Snyder.Jim@epa.gov>; Good, David <good.david@epa.gov>; Ex. 7 @vw.com>
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Hello everyone,

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We therefore would like to request this data or instruction on how to access it ourselves. Our goal is to confirm that all test results in our possession have been submitted as required.

Pending internal resolution regarding our current CHROMERR/Verify processes my verify account access is currently on hold, but we are receiving aid from our Cert staff in submitting current results as necessary.

With any questions or concerns please let me know.

Regards / Mit freundlichen Grüßen,

Garett Horton

In-Use Compliance Specialist

Engineering & Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

United States of America

Phone: (248) 754-4234

Cell: (248) 600-2908

Email: Garett.Horton@vw.com

To: Horton, Garett[Garett.Horton@vw.com]
Cc: Ex. 7 Snyder, Jim[Snyder.Jim@epa.gov]; Good, David[good.david@epa.gov]; Ex. 7 Ex. 7
From: Pidgeon, Bill
Sent: Fri 1/29/2016 3:05:03 PM
Subject: RE: IUVP Data Request
VW 2010MY IUVP Test No 2016 0129.xlsx

Hi Garett,

The attached file has the VW 2010MY "VerifyTest Num".

Best wishes,

Bill

From: Horton, Garett [mailto:Garett.Horton@vw.com]
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Sent: Tuesday, January 26, 2016 12:10 PM
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Cc: Ex. 7 Snyder, Jim <Snyder.Jim@epa.gov>; Good, David <good.david@epa.gov>; Ex. 7 @vw.com>
Subject: IUVP Data Request

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3800 Hamlin Road

Auburn Hills, MI 48326

United States of America

Phone: (248) 754-4234

Cell: (248) 600-2908

Email: Garett.Horton@vw.com

ModelYear	MFRCode	Manufacturer	VIN	Test Group	Evap Family	ManufacturerDivision
2010	VWX	Volkswagen	[redacted]	AVWXV02.5259	AVWXR0110237	Volkswagen
2010	VWX	Volkswagen		AVWXV02.5U35	AVWXR0110238	Volkswagen
2010	VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010	VWX	Volkswagen		AVWXV02.03UA	AVWXR0110238	Volkswagen
2010	VWX	Volkswagen		AVWXV02.5U35	AVWXR0110238	Volkswagen
2010	VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	Volkswagen
2010	VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	Volkswagen
2010	VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	Volkswagen
2010	VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010	VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010	VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010	VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010	VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010	VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010	VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010	VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	VW
2010	VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	VW
2010	VWX	Volkswagen		AVWXV02.5253	-	VW
2010	VWX	Volkswagen		AVWXV02.0U5N	-	VW
2010	VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	VW
2010	VWX	Volkswagen		AVWXV02.0U5N	-	VW
2010	VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	VW
2010	VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	VW
2010	VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	VW
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2010	VWX	Volkswagen		AVWXV02.5U35	AVWXR0110238	Volkswagen
2010	VWX	Volkswagen		AVWXV02.5U35	AVWXR0110238	Volkswagen
2010	VWX	Volkswagen		AVWXT03.6U76	AVWXR0170358	Audi
2010	VWX	Volkswagen		AVWXV02.5253	AVWXR0110235	Volkswagen
2010	VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	Volkswagen
2010	VWX	Volkswagen		AVWXV02.5253	AVWXR0110235	Volkswagen
2010	VWX	Volkswagen		AVWXV02.03UA	AVWXR0125246	Volkswagen
2010	VWX	Volkswagen		AVWXV02.03UA	AVWXR0125246	Volkswagen
2010	VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	Volkswagen
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2010	VWX	Volkswagen		AVWXT03.6U76	AVWXR0230276	Volkswagen
2010	VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010	VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen

2010VWX	Volkswagen	[redacted]	AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	VW
2010VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	VW
2010VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	VW
2010VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	VW
2010VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	VW
2010VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	VW
2010VWX	Volkswagen		AVWXV02.5U35	AVWXR0110238	VW
2010VWX	Volkswagen		AVWXV02.5U35	AVWXR0110238	VW
2010VWX	Volkswagen		AVWXV02.0U5N	-	VW
2010VWX	Volkswagen		AVWXV02.5U35	AVWXR0110238	VW
2010VWX	Volkswagen		AVWXV02.0U5N	-	VW
2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0230276	VW
2010VWX	Volkswagen		AVWXV02.03SA	AVWXR0125246	Volkswagen
2010VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	Volkswagen
2010VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	Volkswagen
2010VWX	Volkswagen		AVWXV02.5U35	AVWXR0110238	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.03UA	AVWXR0110238	Volkswagen
2010VWX	Volkswagen		AVWXV02.5253	AVWXR0110235	Volkswagen
2010VWX	Volkswagen		AVWXV02.5253	AVWXR0110235	Volkswagen
2010VWX	Volkswagen		AVWXV02.5253	AVWXR0110235	Volkswagen
2010VWX	Volkswagen		AVWXV02.03UA	AVWXR0125246	Volkswagen
2010VWX	Volkswagen		AVWXV02.03UA	AVWXR0125246	Volkswagen
2010VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	Volkswagen
2010VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	Volkswagen
2010VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	Volkswagen
2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0230276	Volkswagen
2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0230276	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	VW
2010VWX	Volkswagen		AVWXV02.5253	-	VW
2010VWX	Volkswagen		AVWXV02.5253	-	VW
2010VWX	Volkswagen		AVWXV02.0U5N	-	VW
2010VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	VW
2010VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	VW
2010VWX	Volkswagen		AVWXV02.03SA	AVWXR0110238	VW
2010VWX	Volkswagen		AVWXV02.5253	AVWXR0110235	VW
2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0230276	VW
2010VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	VW
2010VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	VW
2010VWX	Volkswagen		AVWXV02.5253	AVWXR0110235	Volkswagen

2010VWX	Volkswagen	[redacted]	AVWXV02.5253	AVWXR0110235	Volkswagen
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2010VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	Volkswagen
2010VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	Volkswagen
2010VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	Volkswagen
2010VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	Volkswagen
2010VWX	Volkswagen		AVWXV02.5U35	AVWXR0110238	Volkswagen
2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0170358	Audi
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.03UA	AVWXR0125246	Volkswagen
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2010VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	Volkswagen
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2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
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2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0230276	VW
2010VWX	Volkswagen		AVWXV02.5253	AVWXR0110235	Volkswagen
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2010VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	Volkswagen
2010VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	Volkswagen

2010VWX	Volkswagen	[redacted]	AVWXV02.5259	AVWXR0110237	Volkswagen
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2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.5U35	AVWXR0110238	Volkswagen
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2010VWX	Volkswagen		AVWXV02.03UA	AVWXR0125246	Volkswagen
2010VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	Volkswagen
2010VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	Volkswagen
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2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0230276	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	VW
2010VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	VW
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2010VWX	Volkswagen		AVWXV02.0U5N	-	VW
2010VWX	Volkswagen		AVWXV02.0U5N	-	VW
2010VWX	Volkswagen		AVWXV02.03SA	AVWXR0110238	VW
2010VWX	Volkswagen		AVWXV02.03SA	AVWXR0110238	VW
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2010VWX	Volkswagen		AVWXV02.0U5N	-	VW
2010VWX	Volkswagen		AVWXV02.5253	AVWXR0110235	VW
2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0170358	Audi
2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0230276	VW
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2010VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	VW
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2010VWX	Volkswagen		AVWXV02.0U5N	-	VW
2010VWX	Volkswagen		AVWXV02.0U5N	-	VW
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2010VWX	Volkswagen		AVWXV02.5U35	AVWXR0110238	VW
2010VWX	Volkswagen		AVWXV02.0U5N	-	VW
2010VWX	Volkswagen		AVWXV02.0U5N	-	VW
2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0170358	Audi
2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0230276	VW
2010VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	VW
2010VWX	Volkswagen		AVWXV02.5253	AVWXR0110235	Volkswagen
2010VWX	Volkswagen		AVWXV02.03SA	AVWXR0125246	Volkswagen
2010VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	Volkswagen
2010VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	Volkswagen
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2010VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	Volkswagen
2010VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0170358	Audi
2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0170358	Audi
2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0170358	Audi
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.03UA	AVWXR0110238	Volkswagen

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2010VWX	Volkswagen	9	AVWXV02.5253	AVWXR0110235	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
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2010VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	VW
2010VWX	Volkswagen	2	AVWXV02.5257	AVWXR0110235	VW
2010VWX	Volkswagen	2	AVWXV02.5253	-	VW
2010VWX	Volkswagen	2	AVWXV02.5253	-	VW
2010VWX	Volkswagen		AVWXV02.0U5N	-	VW
2010VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	VW
2010VWX	Volkswagen		AVWXV02.0U5N	-	VW
2010VWX	Volkswagen	5	AVWXV02.03PA	AVWXR0125P46	VW
2010VWX	Volkswagen	6	AVWXV02.5U35	AVWXR0110238	VW
2010VWX	Volkswagen	6	AVWXV02.5U35	AVWXR0110238	VW
2010VWX	Volkswagen	6	AVWXV02.5U35	AVWXR0110238	VW
2010VWX	Volkswagen	1	AVWXV02.5253	AVWXR0110235	VW
2010VWX	Volkswagen		AVWXV02.0U5N	-	VW
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2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0170358	Audi
2010VWX	Volkswagen	3	AVWXV02.5257	AVWXR0110235	VW
2010VWX	Volkswagen	3	AVWXV02.5257	AVWXR0110235	VW
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2010VWX	Volkswagen	3	AVWXV02.5257	AVWXR0110235	VW
2010VWX	Volkswagen	4	AVWXV02.03PA	AVWXR0125P46	VW
2010VWX	Volkswagen	0	AVWXV02.03UA	AVWXR0125246	Volkswagen
2010VWX	Volkswagen	9	AVWXV02.5257	AVWXR0110235	Volkswagen
2010VWX	Volkswagen	9	AVWXV02.5257	AVWXR0110235	Volkswagen
2010VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	Volkswagen
2010VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	Volkswagen
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2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0170358	Audi
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen

2010VWX	Volkswagen	[redacted]	AVWXV02.0U5N	-	Volkswagen
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2010VWX	Volkswagen		AVWXV02.5U35	AVWXR0110238	Volkswagen
2010VWX	Volkswagen		AVWXV02.5U35	AVWXR0110238	Volkswagen
2010VWX	Volkswagen		2 AVWXV02.5253	AVWXR0110235	Volkswagen
2010VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	Volkswagen
2010VWX	Volkswagen		9 AVWXV02.03PA	AVWXR0125P46	Volkswagen
2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0230276	Volkswagen
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2010VWX	Volkswagen		6 AVWXV02.5U35	AVWXR0110238	VW
2010VWX	Volkswagen		AVWXV02.0U5N	-	VW
2010VWX	Volkswagen		AVWXV02.5U35	AVWXR0110238	VW
2010VWX	Volkswagen		1 AVWXV02.5253	AVWXR0110235	VW
2010VWX	Volkswagen		AVWXV02.0U5N	-	VW
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2010VWX	Volkswagen		5 AVWXV02.03PA	AVWXR0125P46	Volkswagen
2010VWX	Volkswagen		2 AVWXV02.03PA	AVWXR0125P46	Volkswagen
2010VWX	Volkswagen		2 AVWXV02.03PA	AVWXR0125P46	Volkswagen
2010VWX	Volkswagen		9 AVWXV02.5257	AVWXR0110235	Volkswagen
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2010VWX	Volkswagen	[redacted]	AVWXV02.03UA	AVWXR0110238	Volkswagen
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2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0230276	VW
2010VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	VW
2010VWX	Volkswagen		AVWXV02.5253	AVWXR0110235	Volkswagen
2010VWX	Volkswagen		AVWXV02.03SA	AVWXR0125246	Volkswagen
2010VWX	Volkswagen		AVWXV02.03PA	AVWXR0125P46	Volkswagen
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2010VWX	Volkswagen		AVWXV02.5259	AVWXR0110237	Volkswagen
2010VWX	Volkswagen		AVWXV02.5U35	AVWXR0110238	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0170358	Audi
2010VWX	Volkswagen		AVWXT03.6U76	AVWXR0170358	Audi
2010VWX	Volkswagen		AVWXV02.03UA	AVWXR0110238	Volkswagen
2010VWX	Volkswagen		AVWXV02.03UA	AVWXR0110238	Volkswagen
2010VWX	Volkswagen		AVWXV02.03UA	AVWXR0110238	Volkswagen

2010VWX	Volkswagen	[redacted]	AVWXV02.5U35	AVWXR0110238	Volkswagen
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2010VWX	Volkswagen		AVWXV02.5253	AVWXR0110235	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
2010VWX	Volkswagen		AVWXV02.0U5N	-	Volkswagen
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2010VWX	Volkswagen		AVWXV02.5U35	AVWXR0110238	VW
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2010VWX	Volkswagen		AVWXV02.5257	AVWXR0110235	VW
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VerifyTest Num	MFRTest Lab	Odometer At Test
1011879	Test Center - Westlake Village	16275
1011893	Environmental Testing Corporation	11087
1011855	Test Center - Westlake Village	11635
1011992	Test Center - Westlake Village	35128
1012028	Test Center - Westlake Village	32643
1012890	Test Center - Westlake Village	13083
1013247	Test Center - Westlake Village	16757
1013240	Test Center - Westlake Village	10318
1017854	Volkswagen AG, Dept EASZ/1	0
1017854	Volkswagen AG, Dept EASZ/1	0
1017916	Volkswagen AG, Dept EASZ/1	49608
1017916	Volkswagen AG, Dept EASZ/1	49608
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1017853	Volkswagen AG, Dept EASZ/1	24141
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1028150	Test Center California	94287
1029456	Test Center California	68140
1030570	Test Center California	58028
1030571	Test Center California	58063
1029004	Test Center California	50475
1011884	Test Center - Westlake Village	14561
1011893	Environmental Testing Corporation	11087
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1013738	Test Center - Westlake Village	20568
1013738	Test Center - Westlake Village	20568
1017763	Volkswagen AG, Dept EASZ/1	34608
1017916	Volkswagen AG, Dept EASZ/1	49608

1017852	Volkswagen AG, Dept EASZ/1	24109
1017915	Volkswagen AG, Dept EASZ/1	49597
1017915	Volkswagen AG, Dept EASZ/1	49597
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1029643	Test Center California	78955
1029828	Test Center California	82095
1029686	Test Center California	73589
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1031982	Environmental Testing Corporation	55783

1031982	Environmental Testing Corporation	55783
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1031893	DUMMY A	90999
1031893	DUMMY A	90999

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1017852	Volkswagen AG, Dept EASZ/1	24109
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1013742	Test Center - Westlake Village	20638
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1017854	Volkswagen AG, Dept EASZ/1	0
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1029685	Test Center California	73542
1029685	Test Center California	73542
1029685	Test Center California	73542
1029686	Test Center California	73589

1030570	Test Center California	58028
1029005	Test Center California	50513
1029005	Test Center California	50513
1029006	Test Center California	50575
1031928	Environmental Testing Corporation	64056
1031928	Environmental Testing Corporation	64056
1031892	DUMMY A	90988
1031893	DUMMY A	90999
1011880	Test Center - Westlake Village	16303
1011882	Test Center - Westlake Village	16303
1011859	Test Center - Westlake Village	34142
1011828	Test Center - Westlake Village	18340
1011855	Test Center - Westlake Village	11635
1011857	Test Center - Westlake Village	35728
1012027	Test Center - Westlake Village	32615
1012736	Test Center - Westlake Village	19742
1012737	Test Center - Westlake Village	19753
1012890	Test Center - Westlake Village	13083
1013240	Test Center - Westlake Village	10318
1013741	Test Center - Westlake Village	20638
1013739	Test Center - Westlake Village	20604
1013739	Test Center - Westlake Village	20604
1017854	Volkswagen AG, Dept EASZ/1	0
1017854	Volkswagen AG, Dept EASZ/1	0
1017763	Volkswagen AG, Dept EASZ/1	34608
1017916	Volkswagen AG, Dept EASZ/1	49608
1028231	Test Center California	69852
1028371	Test Center California	57621
1028469	Test Center California	53507
1030459	Test Center California	52852
1030459	Test Center California	52852
1030457	Test Center California	68284
1029643	Test Center California	78955
1029643	Test Center California	78955
1029827	Test Center California	82084
1030573	Test Center California	58056
1029004	Test Center California	50475
1029005	Test Center California	50513
1031986	Environmental Testing Corporation	80971

To: .WASH WI-6 Maue, Georg[wi-6@wash.auswaertiges-amt.de]
From: Phillips, Anna
Sent: Mon 2/1/2016 6:25:22 PM
Subject: RE: Follow-Up on ICAO Calls

Thank you, Georg. At this point, I don't think that will be necessary but the offer is much appreciated.

By the way, I am still trying to get confirmation on the response to the pending invitation to the Berlin event and the meeting request for Janet McCabe so I apologize for the delay and I will let you know as soon as I have news to share.

Also FYI, the head of EPA's Office of Transportation and Air Quality, Chris Grundler, will be in Germany on Friday and Monday and will meet with BMUB and Ministry of Transport officials on vehicle emissions issues – but not on the VW case. Stephan is already aware of this but I wanted to be sure that you knew, as well.

Many thanks again for all of your help – and patience.

All the best,

Anna

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Anna Phillips

Program Manager for Europe
U.S. Environmental Protection Agency (EPA)

Office of International & Tribal Affairs

Washington, D.C. 20460

Tel: (+1) 202.564.6419 Fax: (+1) 202.565.2427
E-mail: phillips.anna@epa.gov

http://www2.epa.gov/international-cooperation
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Please consider the environment before printing this message.

From: .WASH WI-6 Maue, Georg [mailto:wi-6@wash.auswaertiges-amt.de]
Sent: Monday, February 01, 2016 12:18 PM
To: Phillips, Anna <Phillips.Anna@epa.gov>
Subject: AW: Follow-Up on ICAO Calls

Dear Anna,

thanks for the update; just in case, any further call today would be requested, State Secretary Flasbarth could step in for Minister Hendricks; he would be available to call today evening (Nairobi time).

Best

Georg

Dr. Georg Maue

Counselor for Energy and Climate Policy

Embassy of the Federal Republic of Germany

4645 Reservoir Road

Washington, DC 20007
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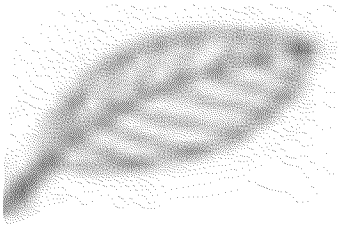
Tel: +1 (202) 298 4355

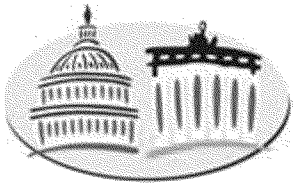
Fax: +1 (202) 298 4391

E-mail: wi-6@wash.diplo.de

Our Choices Matter - www.transatlantic-climate-bridge.org

www.germany.info







@GermanyinUSA

Von: Phillips, Anna [mailto:Phillips.Anna@epa.gov]
Gesendet: Montag, 1. Februar 2016 11:25
An: Schulz, Kirsten A; Peck, Sarah C; Magdanz, Erik J; WalshJU@state.gov; Hatcher, Kari E; Jordan, Katrin
Cc: DELPORTE Vincent; .WASH WI-6 Maue, Georg; .WASH WI-2 Weber, Michael
Betreff: FW: Follow-Up on ICAO Calls

With many thanks to all of you who worked over the weekend to help EPA make this connection, and as noted below, it appears that Administrator McCarthy's schedule will not accommodate any more calls today.

We greatly appreciated your help on such short notice and I will let you know if there are updates to share on this.

All the best,
Anna

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Anna Phillips

Program Manager for Europe
U.S. Environmental Protection Agency (EPA)

Office of International & Tribal Affairs

Washington, D.C. 20460

Tel: (+1) 202.564.6419 Fax: (+1) 202.565.2427
E-mail: phillips.anna@epa.gov

http://www2.epa.gov/international-cooperation

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Please consider the environment before printing this message.

From: Kasman, Mark
Sent: Monday, February 01, 2016 11:19 AM
To: Phillips, Anna <Phillips.Anna@epa.gov>
Subject: Follow-Up on ICAO Calls

Anna,

For those calls that have yet to be scheduled, please let your colleagues know that the Administrator's time slots have been completely filled today.

We appreciate everyone's efforts very much.

Mark

Mark S. Kasman

Director

Office of Regional and Bilateral Affairs

Office of International and Tribal Affairs

U.S. Environmental Protection Agency

1300 Pennsylvania Avenue, N.W. (2650R)

Washington, D.C. 20460

202-564-2024

National Vehicle and Fuel Emissions Laboratory
2565 Plymouth Road, Ann Arbor, Michigan 48105

EPA Parameters Form for In-Use Coastdown Testing

EPA Vehicle Control Number:

Equivalent Test Weight: Pounds (Integer Only: Equivalent Test Weight)

Nominal Fuel Tank Capacity: Gallons **40% Fill** Gallons

Curb Weight

Drive axle weight w/ full tank of fuel

Drive Axle:

Coefficient of Drag (C_D): **Frontal Area:**

Tread Depth (original OEM tire spec)

Suspension Height **LF** **RF** (please specify measurement proceedure)
LR **RR** (may be submitted at a later time if not availible by June 29th)

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A Lb-force

B Lb-force/mph

C Lb-force/mph^2

Canister Working Capacity:

Grams (Integer Only: Canister Working Capacity)

Number of Canisters (Integer Only: Number of Canisters)

Total Canister Volume (cm3)

Please attach a file with alignment specifications for this vehicle. **Alignment specs attached?_____(Y/N)**

Vehicle Starting Instructions, including Traction Control disabling:

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process:

Fuel Draining Process:

ABS Disabling Process:

Fuel Switch Process (Flex Fuel only):

Comments:

For internal EPA Use Only:

This information was obtained from:

* Letter, e-mail, fax or other document delivered from the manufacturer
  (attach any additional information from the manufacturer to this form)
* Verbal instruction from the manufacturer's representative
* Other (specify)

Manufacturer Representative: _____ *Date:* _____

URS Representative: _____ *Date:* _____

EPA Representative: _____ *Date:* _____

To: Ex. 7
From: Snyder, Jim
Sent: Tue 2/2/2016 3:20:12 PM
Subject: RE: Q7 coastdown vehicle

Also, ask if there is anything special we should know about while coasting. Normal procedure is the accel to 78, stabilize for 1-2 seconds then go to neutral and coast with engine idling.

From: Snyder, Jim
Sent: Tuesday, February 02, 2016 9:49 AM
To: Ex. 7
Subject: RE: Q7 coastdown vehicle

Here is the form. You can return it to me.

From: Snyder, Jim
Sent: Tuesday, February 02, 2016 9:42 AM
To: Ex. 7
Subject: Q7 coastdown vehicle

Ex. 7 Just a heads up that we will need testing parameters for the Q7. Lynn Sohacki will a sheet to fill out.

Jim Snyder
Light-Duty Vehicle Group
Compliance Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: Haynes, Ben[haynes.ben@epa.gov]; Mazaitis, Vincent[mazaitis.vincent@epa.gov]
Cc: Snyder, Jim[Snyder.Jim@epa.gov]; Ex. 7
Ex. 7
From: Ex. 7
Sent: Tue 2/2/2016 8:15:04 PM
Subject: RE: 2017 Audi Q7 confirmatory completed

Hello Ben / Vince,

We would like to pick up the Q7 emissions test vehicle tomorrow (02/03/2016) around 10 a.m.

Please let us know if this does not work, otherwise we will see you tomorrow.

Thanks!

Regards,

Ex. 7

VWGoA EEO

Ex. 7

From: Ex. 7
Sent: Tuesday, February 02, 2016 9:08 AM
To: Ex. 7
Cc: Ex. 7
Ex. 7
Ex. 7
Subject: FW: 2017 Audi Q7 confirmatory completed

Ex. 7

The Audi Q7 emission test vehicle currently at EPA is ready to be picked up. Please schedule at your earliest convenience if not already done.

Thanks,

Ex. 7

From: Snyder, Jim [mailto:Snyder.Jim@epa.gov]
Sent: Thursday, January 28, 2016 12:47 PM
To: Ex. 7
Cc: Mazaitis, Vincent <mazaitis.vincent@epa.gov>
Subject: RE: 2017 Audi Q7 confirmatory completed

Ex. 7 I'm releasing the vehicle. You can make arrangements to pick it up.

Jim Snyder
Light-Duty Vehicle Group
Compliance Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

UNITED STATES OF AMERICA, Plaintiff, v. Volkswagen AG, Audi AG, Volkswagen Group of America, Inc., Volkswagen Group of America Chattanooga Operations, LLC, Dr. Ing. H.c. F. Porsche AG, and Porsche Cars North America, Inc., Defendants.	Civil Action No.

COMPLAINT

The United States of America, by authority of the Attorney General of the United States and at the request of the Administrator of the United States Environmental Protection Agency ("EPA"), files this complaint and alleges as follows:

NATURE OF ACTION

1. This is a civil action brought pursuant to Sections 204 and 205 of the Clean Air Act ("Act"), 42 U.S.C. §§ 7523 and 7524, for injunctive relief and the assessment of civil penalties against Volkswagen AG, Audi AG, Volkswagen Group of America, Inc. ("VWoA"), Volkswagen Group of America Chattanooga Operations, LLC ("VWoA Chattanooga"), Dr. Ing. h.c. F. Porsche AG ("Porsche AG"), and Porsche Cars North America, Inc. (collectively, "VW") for violations of the Act and regulations promulgated thereunder.

JURISDICTION AND VENUE

2. This Court has jurisdiction over the subject matter of and the parties to this action pursuant to Sections 203, 204, and 205 of the Act, 42 U.S.C. §§ 7522, 7523, and 7524, and 28 U.S.C. §§ 1331, 1345, and 1355.

3. This Court has personal jurisdiction over Defendant Volkswagen AG under Mich. Comp. Laws § 600.705 because Volkswagen AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Defendant Volkswagen AG is consistent with due process.

4. Among other things, Defendant Volkswagen AG interacts with Defendant VWoA, its wholly-owned subsidiary, which has an office in Auburn Hills, Michigan and this judicial district, by regularly submitting information to VWoA necessary for VWoA to complete the required applications to obtain certificates of conformity ("COCs") for a significant number of the vehicles Volkswagen AG sells in the United States. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with its wholly-owned subsidiary, Volkswagen AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Volkswagen AG has also attended meetings at, and had other communications with, EPA's Ann Arbor, Michigan Office of Transportation and Air Quality ("OTAQ"), the EPA office in charge of issuing COCs. Further, Volkswagen AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

5. This Court has personal jurisdiction over Defendant VWoA under Mich. Comp. Laws § 600.705 because it transacts business in Michigan. In addition, this Court's exercise of

jurisdiction over VWoA is consistent with due process.

6. Among other things, VWoA has an Engineering and Environmental Office in Auburn Hills, Michigan from which it interacts with EPA OTAQ in connection with obtaining many of the COCs for vehicles sold in the United States, including many of the light duty diesel vehicles addressed in this Complaint. Further, VWoA delivered or arranged for delivery of many of the vehicles addressed in this Complaint, within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

7. This Court has personal jurisdiction over Defendant Audi AG under Mich. Comp. Laws § 600.705 because Audi AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Audi AG is consistent with due process.

8. Among other things, Audi AG has interacted with VWoA's Auburn Hills, Michigan office by regularly submitting information to VWoA's Auburn Hills office necessary for VWoA to complete the required applications to obtain COCs for the vehicles that Audi AG sells in the United States, including the light duty diesel vehicles addressed in this Complaint. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that in connection with this and other interactions with VWoA, Audi AG has attended meetings at VWoA's Auburn Hills office, and corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Audi AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Audi AG delivered or arranged for delivery of its cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

9. This Court has personal jurisdiction over Defendant Volkswagen Group of America

VW FOIA, EPA 06/20/2017 2017-FFP_038291

Chattanooga Operations, LLC, under Mich. Comp. Laws § 600.705 because VWoA Chattanooga transacts business in Michigan. In addition, this Court's exercise of jurisdiction over VWoA Chattanooga is consistent with due process.

10. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, VWoA is the corporate parent of VWoA Chattanooga; VWoA Chattanooga manufactures certain Passats; VWoA Chattanooga interacts with VWoA, in connection with vehicle manufacturing and other matters; in connection with this and other interactions with its parent company, VWoA Chattanooga has attended meetings at VWoA's Auburn Hills, Michigan office and/or corresponded, telephoned and otherwise communicated with VWoA's Auburn Hills office. Further, VWoA Chattanooga delivered or arranged for delivery of its cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

11. This Court has personal jurisdiction over Defendant Porsche AG under Mich. Comp. Laws § 600.705 because Porsche AG transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche AG is consistent with due process.

12. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche AG has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche AG has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche AG has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor,

VW FOIA, EPA 06/20/2017 2017-FFP_038292

Michigan. Further, Porsche AG delivered or arranged for delivery of Porsche cars to the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

13. This Court has personal jurisdiction over Defendant Porsche Cars North America, Inc. under Mich. Comp. Laws § 600.705 because Porsche Cars North America, Inc. transacts business in Michigan. In addition, this Court's exercise of jurisdiction over Porsche Cars North America, Inc. is consistent with due process.

14. The United States alleges, subject to a reasonable opportunity for further investigation or discovery, that: among other things, Porsche Cars North America, Inc. has interacted with VWoA's Auburn Hills, Michigan office in connection with obtaining COCs for the Porsche light duty diesel vehicles addressed in this Complaint; in connection with this and other interactions with VWoA, Porsche Cars North America, Inc. has attended meetings at VWoA's Auburn Hills office and/or corresponded, telephoned, and otherwise communicated with VWoA's Auburn Hills office. Porsche Cars North America, Inc. has also attended meetings at, and had other communications with, EPA's OTAQ in Ann Arbor, Michigan. Further, Porsche Cars North America, Inc. delivered or arranged for delivery of Porsche cars within the United States with the intent to market and sell them in all 50 states, including Michigan, and in fact, cars were sold in Michigan.

15. Venue is proper in this jurisdiction pursuant to Sections 204 and 205 of the Act, 42 U.S.C. §§ 7523 and 7524, because violations occurred in this judicial district and VWoA has a corporate office within this judicial district.

VW FOIA, EPA 06/20/2017 2017-FFP_038293

DEFENDANTS

16. Volkswagen AG is a publicly-held German corporation.

17. Volkswagen AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

18. Volkswagen AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

19. Volkswagen Group of America, Inc. is incorporated under the laws of the State of New Jersey, and is a wholly-owned subsidiary of Volkswagen AG.

20. Volkswagen Group of America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

21. Volkswagen Group of America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

22. Volkswagen Group of America Chattanooga Operations, LLC is incorporated under the laws of the State of Tennessee, and is a wholly-owned subsidiary of VWoA.

23. Volkswagen Group of America Chattanooga Operations, LLC is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

24. Volkswagen Group of America Chattanooga Operations, LLC is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

25. Audi AG is a German corporation, and is approximately 99.55% owned by Volkswagen AG.

26. Audi AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

VW FOIA, EPA 06/20/2017 2017-FFP_038294

27. Audi AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

28. Porsche AG is a German corporation, and is wholly-owned by Volkswagen AG.

29. Porsche AG is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

30. Porsche AG is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

31. Porsche Cars North America, Inc. is a Delaware corporation, and is a wholly-owned subsidiary of Porsche AG.

32. Porsche Cars North America, Inc. is a "person" within the meaning of Section 302(e) of the Act, 42 U.S.C. § 7602(e).

33. Porsche Cars North America, Inc. is a "manufacturer" within the meaning of Section 216(1) of the Act, 42 U.S.C. § 7550(1).

34. At all times relevant to this action, VW was engaged in the business of manufacturing new motor vehicles, and selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing (or causing the foregoing with respect to) these vehicles in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_038295

STATUTORY AND REGULATORY BACKGROUND

35. This action arises under Title II of the Act, as amended, 42 U.S.C. § 7521 *et seq.*, and the regulations promulgated thereunder, which aim to protect human health and the environment by reducing emissions of nitrogen oxides ("NOx") and other pollutants from mobile sources of air pollution, including new motor vehicles.

36. NOx is a family of highly reactive gases that play a major role in the atmospheric reactions with volatile organic compounds that produce ozone in the atmosphere. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Breathing ozone can also worsen bronchitis, emphysema, and asthma, and can lead to premature death. Children are at greatest risk of experiencing negative health impacts from exposure to ozone. Additionally, recent scientific studies indicate that the direct health effects of NOx are worse than previously understood, including respiratory problems, damage to lung tissue, and premature death.

37. Section 202(a) of the Act, 42 U.S.C. § 7521(a), requires EPA to promulgate emissions standards for new motor vehicles for NOx, and other air pollutants.

38. 40 C.F.R. Part 86 sets emission standards and test procedures for light-duty motor vehicles, including emission standards for NOx. *See* 40 C.F.R. § 86.1811-04.

A. Certificates of Conformity and Prohibition on Uncertified Motor Vehicles

39. Light-duty vehicles must satisfy emission standards for certain air pollutants. 40 C.F.R. §§ 86.1811-04, 86.1811-09, 86.1811-10. EPA administers a certification program to ensure that every new motor vehicle introduced into United States commerce satisfies applicable emission standards. 42 U.S.C. § 7521. Under this program, EPA issues COCs and thereby

VW FOIA, EPA 06/20/2017 2017-FFP_038296

regulates the introduction of new motor vehicles into United States commerce.

40. To obtain a COC, a manufacturer must submit an application to EPA for each model year and for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1843-01. A test group is comprised of vehicles with similar emissions profiles for pollutants regulated under the Act. *See, e.g.,* 40 C.F.R. §§ 86.1803-01, 86.1827-01.

41. Vehicles are covered by a COC only if the vehicles are as described in the manufacturer's application for the COC "in all material respects." 40 C.F.R. § 86.1848-10(c)(6).

42. EPA issues COCs "upon such terms . . . as [the Administrator] may prescribe." 42 U.S.C. § 7525(a)(1); *see also* 40 C.F.R. § 86.1848-01(b) (authorizing EPA to issue COCs on any terms that are necessary and appropriate to assure that new motor vehicles satisfy the requirements of the CAA and its regulations).

43. Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), prohibits manufacturers of new motor vehicles from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or any person from importing into the United States any new motor vehicle not covered by a COC issued by EPA under regulations prescribed by the Act governing vehicle emission standards. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

B. Prohibition on Defeat Devices and Tampering

44. Each COC application must include, among other things, a list of all auxiliary emission control devices ("AECDs") installed on the vehicles. 40 C.F.R. § 86.1844-01(d)(11).

45. An AECD is "any element of design which senses temperature, vehicle speed, engine [revolutions per minute], transmission gear, manifold vacuum, or any other parameter for

VW FOIA, EPA 06/20/2017 2017-FFP_038297

the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.1803-01.

46. An element of design is "any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine." 40 C.F.R. § 86.1803-01.

47. Each COC application must also include "a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device." 40 C.F.R. § 86.1844-01(d)(11).

48. A motor vehicle containing an AECD that can reasonably be expected to affect emission controls and is not disclosed or justified in the COC application does not conform in all material respects with the COC application, and is therefore not covered by the COC.

49. A "defeat device" is an AECD "that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . . . ." 40 C.F.R. § 86.1803-01.

50. Motor vehicles equipped with defeat devices cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972); *see also* 40 C.F.R. §§ 86.1809-01, 86.1809-10, 86.1809-12.

51. Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." *See also* 40 C.F.R. § 86.1854-12(a)(3)(ii).

52. Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), prohibits any person from removing or rendering inoperative any device or element of design installed on a motor vehicle in compliance with the regulations promulgated under Title II of the Act prior to its sale and delivery to the ultimate purchaser.

53. It is also a violation to cause any of the acts set forth in Section 203(a)(3). 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

C. Reporting Requirements

54. Section 208(a) of the Act, 42 U.S.C. § 7542(a), requires that "[e]very manufacturer of new motor vehicles . . . establish and maintain records, perform tests . . . make reports, and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting in compliance" with Part A of Title II of the Act.

55. Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), prohibits any person from failing or refusing to make reports or provide information to EPA pursuant to Section 208 of the

VW FOIA, EPA 06/20/2017 2017-FFP_038299

Act, 42 U.S.C. § 7542. It is also a violation to cause any of the foregoing acts. 42 U.S.C. § 7522(a); 40 C.F.R. § 86.1854-12(a).

GENERAL ALLEGATIONS

56. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix A to this Complaint ("2.0L Subject Vehicles").

57. Each of the 2.0L Subject Vehicles is equipped with a 2.0 liter diesel engine, and is part of model years 2009-2015.

58. In total, approximately 500,000 2.0L Subject Vehicles were sold in the United States.

59. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for the 2.0L Subject Vehicles.

60. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix B to this Complaint ("3.0L Subject Vehicles").

61. Each of the 3.0L Subject Vehicles is equipped with a 3.0 liter diesel engine, and is part of model years 2009-2016.

62. In total, approximately 80,000 3.0L Subject Vehicles were sold in the United States.

VW FOIA, EPA 06/20/2017 2017-FFP_038300

63. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for certain 3.0L Subject Vehicles.

64. Porsche Cars North America, Inc. submitted to EPA, on behalf of itself, and representing Porsche AG, the applications for COCs for certain 3.0L Subject Vehicles.

65. Each COC issued by EPA during the time period relevant to this Complaint states on its face that the certificate covers only those new motor vehicles that conform, in all material respects, to the design specifications provided to EPA in the certificate application for such vehicle.

66. Each application for a COC constitutes a "report [and/or] information the Administrator may reasonably require . . ." to assess compliance with the Act, within the meaning of Section 208(a) of the Act, 42 U.S.C. § 7542(a).

A. The 2.0L Subject Vehicles

67. Each 2.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 2.0L Subject Vehicle.

68. The electronic control module ("ECM") of the 2.0L Subject Vehicles contains software logic and/or calibrations that sense when the vehicle is being tested for compliance with applicable emission standards, based on various inputs including the position of the steering wheel, vehicle speed, the duration of the engine's operation, and barometric pressure. These inputs precisely track the parameters of the federal test procedure ("FTP") and other test cycles used for emission testing required to obtain a COC.

VW FOIA, EPA 06/20/2017 2017-FFP_038301

69. During FTP emission testing, the 2.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration that VW has referred to as the "dyno calibration" (referring to the equipment used in emissions testing, called a dynamometer). At all other times during normal vehicle operation, the 2.0L Subject Vehicles' ECM software run a separate "road calibration" that reduces the effectiveness of the emission control system. In other words, the 2.0L Subject Vehicles' ECM software tracks the parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

70. The COC applications for the 2.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 2.0L Subject Vehicles' COC applications.

71. The 2.0L Subject Vehicles therefore are not covered by a COC.

72. This dual-calibration system results in increased NOx emissions by a factor of up to 40 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

73. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

74. VW entities including at least Volkswagen AG, VWoA and Audi AG knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

VW FOIA, EPA 06/20/2017 2017-FFP_038302

75. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

B. The 3.0L Subject Vehicles

76. Each 3.0L Subject Vehicle contains one or more AECDs that were not disclosed, described or justified in the application for the COC that purportedly covers the 3.0L Subject Vehicles.

77. The ECM of the 3.0L Subject Vehicles contains software logic and/or calibrations that cause the vehicle to perform differently when the vehicle is being tested for compliance with applicable emission standards, based on various inputs that appear to track the FTP and/or other test cycles used for emission testing required to obtain a COC, than when the vehicle is in normal operation and use.

78. During FTP emission testing, the 3.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration referred to as the "temperature conditioning mode." At other times during normal vehicle operation, the 3.0L Subject Vehicles' ECM software run a separate "normal mode" that reduces the effectiveness of the emission control system. In other words, the 3.0L Subject Vehicles' ECM software tracks certain parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.

79. The COC applications for the 3.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The

VW FOIA, EPA 06/20/2017 2017-FFP_038303

undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 3.0L Subject Vehicles' COC applications.

80. The 3.0L Subject Vehicles therefore are not covered by a COC.

81. This dual-calibration strategy results in increased NOx emissions by a factor of up to 9 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).

82. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

83. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG and Porsche Cars North America, Inc. knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.

84. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_038304

C. The Investigations and Concealment

85. In or about May 2014, West Virginia University's Center for Alternative Fuels, Engines & Emissions ("WVU") published results of a study commissioned by the International Council on Clean Transportation, and conducted in collaboration with the California Air Resources Board ("CARB"), that found on-road NOx emissions from two 2.0L VW light duty diesel vehicles (2012 Jetta and 2013 Passat) were significantly higher than the applicable emission standards established by EPA regulations.

86. Beginning in or about May 2014 through the present, CARB, in coordination with EPA, has investigated the reasons for the high in-use emissions, repeatedly questioning representatives from VWoA and Volkswagen AG about WVU's findings.

87. In or about October 2014, those VW entities responded that the increased emissions from the vehicles studied by WVU were attributable to various yet-to-be-identified technical issues with the after treatment emission control systems and in-use conditions not represented by the FTP.

88. VW entities including at least VWoA represented to regulators that the vehicles' software could be optimized to address the excess NOx emissions issue and issued a recall in December 2014 and March 2015 for 2.0L vehicles to address the excess emissions issue.

89. From approximately December 2014 through the present, CARB, in coordination with EPA, conducted its own testing to further investigate the reasons behind the high NOx emissions observed on VW's 2.0L light duty diesel vehicles during real world driving conditions, and to investigate the effectiveness of the recall action. This on-road and laboratory testing showed limited reduction in the rates of emission of NOx of the recalled vehicles, and also

VW FOIA, EPA 06/20/2017 2017-FFP_038305

revealed that the vehicles exhibited different behaviors during real world driving conditions than during FTP emission testing.

90. During the course of this investigation, VW entities including at least VWoA and Volkswagen AG suggested a number of potential technical issues and in-use conditions that might explain the higher emission test results, but none of those issues adequately explained why the 2.0L Subject Vehicles behaved differently while operating on the FTP test cycles versus while being driven on the road.

91. In or about September 2015, VW entities including at least VWoA and Volkswagen AG admitted that these 2.0L motor vehicles contained a defeat device in the form of a software algorithm or algorithms that detect when the vehicle is undergoing emission testing.

92. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 2.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least VWoA and Volkswagen AG.

93. VW entities including at least Volkswagen AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 2.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

94. On October 8, 2015, Mr. Michael Horn, VWoA President and Chief Executive Officer, testified before the United States House of Representatives Subcommittee on Oversight and Investigations Committee on Energy and Commerce, and admitted that VWoA and

VW FOIA, EPA 06/20/2017 2017-FFP_038306

Volkswagen AG's representations to EPA and CARB that the increased NOx emissions from the 2.0L Subject Vehicles were due to technical issues were false.

95. During his October 8, 2015 testimony, Mr. Horn further admitted that the installation of the "defeat device" in the 2.0L Subject Vehicles was a knowing and willful decision to deceive.

96. Even after EPA issued its September 18, 2015 Notice of Violation to Volkswagen AG, Audi AG, and VWoA, and Mr. Horn's testimony before Congress, VW failed to come forward and reveal to regulators that the 3.0L Subject Vehicles contain one or more undisclosed AECDs, including the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode." The existence of this dual calibration strategy was uncovered only as a result of EPA and CARB's diligence.

97. On November 2, 2015, EPA issued a Notice of Violation to Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc., citing violations of the Act related to the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode," and the resultant excess emissions in certain 3.0L light duty diesel vehicles.

98. VW entities including at least Volkswagen AG immediately issued a statement denying that software had been installed in 3.0L light duty diesel vehicles to alter emissions in a prohibited manner.

99. On or about November 23, 2015, VW entities including at least Volkswagen AG and Audi AG admitted that the 3.0L Subject Vehicles contain three undisclosed AECDs, one of which – the temperature conditioning mode – is regarded as a defeat device under the Act and implementing regulations.

VW FOIA, EPA 06/20/2017 2017-FFP_038307

100. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 3.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least Volkswagen AG and Audi AG.

101. VW entities including at least Audi AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 3.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

FIRST CLAIM FOR RELIEF
(Section 203(a)(1): Sale, Offer for Sale, Introduction or Delivery for Introduction into Commerce, or Import of New Motor Vehicles Not Covered by COCs)

102. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

103. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 500,000 2.0L Subject Vehicles that were not covered by COCs (or caused any of the foregoing) because the 2.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 2.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 2.0L Subject Vehicles' emission controls.

104. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported the approximately 80,000 3.0L Subject Vehicles that were not covered by COCs (or

VW FOIA, EPA 06/20/2017 2017-FFP_038308

caused any of the foregoing) because the 3.0L Subject Vehicles do not conform in all material respects to the design specifications described in the applications for the COCs that purportedly cover them, in that the 3.0L Subject Vehicles are equipped with undisclosed AECDs that affect the 3.0L Subject Vehicles' emission controls.

105. VW violated Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), by selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing new motor vehicles that were not covered by a COC, or by causing any of the foregoing acts.

106. Each such violation of Section 203(a)(1) of the Act, 42 U.S.C. § 7522(a)(1), is a separate offense with respect to each new motor vehicle.

107. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW is liable for injunctive relief and civil penalties of up to $32,500 per vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

SECOND CLAIM FOR RELIEF
(Section 203(a)(3)(B): Manufacture, Sale, Offer for Sale, or Installation of Defeat Device)

108. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

109. VW entities including at least Volkswagen AG, VWoA and Audi AG manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended for use with, or as part of, motor vehicles, including the road-calibration AECDs installed on the 2.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 2.0L

VW FOIA, EPA 06/20/2017 2017-FFP_038309

Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Volkswagen AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

110. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. manufactured, sold, offered for sale, or installed parts or components (or caused any of the foregoing), intended or use with, or as part of, motor vehicles, including the normal mode calibration AECDs installed on the 3.0L Subject Vehicles, where a principal effect of the part or component is to bypass, defeat, or render inoperative a device or element of design installed on or in the 3.0L Subject Vehicles in compliance with regulations under Title II of the Act, and VW entities including at least Audi AG knew or should have known that such part or component was being offered for sale or installed for such use or put to such use.

111. VW entities including at least Volkswagen AG and Audi AG violated Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B), by manufacturing, selling, offering for sale, or installing "defeat devices" on new motor vehicles, or by causing any of the foregoing acts.

112. Each part or component that constitutes a "defeat device" manufactured, sold, offered for sale, or installed on new motor vehicles (or the causing thereof) is a separate violation of Section 203(a)(3)(B) of the Act, 42 U.S.C. § 7522(a)(3)(B).

113. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG and Audi AG are liable for injunctive relief and civil penalties of up to $2,750 per part or component that constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $3,750 per part or component that

VW FOIA, EPA 06/20/2017 2017-FFP_038310

constitutes a "defeat device" per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

THIRD CLAIM FOR RELIEF
(Section 203(a)(3)(A): Tampering)

114. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

115. The road-calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

116. The normal mode calibration AECDs have the effect of removing or rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with the regulations promulgated under Title II of the Act.

117. VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the road-calibration AECDs in the 2.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

118. VW entities including at least Volkswagen AG, Audi AG and Porsche AG violated Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A), by incorporating the normal mode calibration AECDs in the 3.0L Subject Vehicles, thereby removing or rendering inoperative elements of the emissions control system installed in a new motor vehicle in compliance with regulations promulgated under Title II of the Act, or by causing any of the foregoing acts.

VW FOIA, EPA 06/20/2017 2017-FFP_038311

119. Each 2.0L Subject Vehicle equipped with the road-calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and VWoA Chattanooga of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

120. Each 3.0L Subject Vehicle equipped with the normal mode calibration AECD represents a separate violation by VW entities including at least Volkswagen AG, Audi AG and Porsche AG of Section 203(a)(3)(A) of the Act, 42 U.S.C. § 7522(a)(3)(A).

121. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG and Porsche AG are liable for injunctive relief and civil penalties of up to $32,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per 2.0L Subject Vehicle and per 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

FOURTH CLAIM FOR RELIEF
(Section 203(a)(2): Reporting Violations)

122. The United States realleges paragraphs 1 through 101 above as if fully set forth herein.

123. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to disclose the existence of the road-calibration and/or other AECDs in the COC applications for the 2.0L Subject Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

124. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to disclose the existence of the normal mode calibration and/or other AECDs in the COC applications for the 3.0L Subject

VW FOIA, EPA 06/20/2017 2017-FFP_038312

Vehicles, information reasonably required by the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

125. VW entities including at least Volkswagen AG, Audi AG and VWoA failed or caused the failure to provide a justification for the road-calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the road-calibration and/or other AECDs are not a defeat device, in the COC applications for the 2.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

126. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. failed or caused the failure to provide a justification for the normal mode calibration and/or other undisclosed AECDs, and/or failed or caused the failure to provide a rationale for why the normal mode calibration and/or other AECDs are not a defeat device, in the COC applications for the 3.0L Subject Vehicles, in order for the Administrator to determine whether VW has acted or is acting in compliance with Part A of Title II of the Act.

127. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to disclose one or more AECDs in a COC application for a test group of new motor vehicles.

128. VW entities including at least Volkswagen AG, Audi AG and VWoA violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 2.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

VW FOIA, EPA 06/20/2017 2017-FFP_038313

129. VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. violated Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2), by failing or causing the failure to provide a justification for why AECDs contained in the 3.0L Subject Vehicles are not defeat devices in a COC application for a test group of new motor vehicles.

130. Each failure to provide reports or information described above is a separate violation of Section 203(a)(2) of the Act, 42 U.S.C. § 7522(a)(2).

131. Pursuant to Sections 204(a) and 205(a) of the Act, 42 U.S.C. §§ 7523(a) and 7524(a), VW entities including at least Volkswagen AG, Audi AG, VWoA, Porsche AG and Porsche Cars North America, Inc. are liable for injunctive relief and civil penalties of up to $32,500 per day of violation of Section 203(a)(2) occurring before January 13, 2009, and for injunctive relief and civil penalties of up to $37,500 per day of violation for such violations occurring on or after January 13, 2009, 40 C.F.R. § 19.4.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff, the United States of America, respectfully requests that the Court provide the following relief:

a. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle not covered by a COC issued by EPA in accordance with the Act and the regulations promulgated thereunder.

b. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the

VW FOIA, EPA 06/20/2017 2017-FFP_038314

foregoing acts) any new motor vehicle equipped with an AECD, except in compliance with the Act and the regulations promulgated thereunder.

c. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle equipped with a defeat device.

d. Permanently enjoin VW from bypassing, defeating, or rendering inoperative any device or element of design installed on or in a new motor vehicle in compliance with regulations promulgated under Title II of the Act.

e. Order VW to take appropriate steps, including, but not limited to, mitigation of excess NOx emissions, to remedy the violations of Sections 203(a)(1), 203(a)(3)(A), and 203(a)(3)(B) alleged above.

f. Enter a judgment that VW is liable to the United States for civil penalties for each violation of Section 203(a) of the Act, and assess civil penalties against VW as follows:

i. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(1) of the Act;

ii. up to $32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(A) of the Act;

VW FOIA, EPA 06/20/2017 2017-FFP_038315

iii. up to $2,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to $3,750 per "defeat device" per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(B) of the Act; and

iv. up to $32,500 per day of violation occurring before January 13, 2009, and up to $37,500 per day of violation occurring on or after January 13, 2009 for violations of Section 203(a)(2) of the Act.

g. Award the United States its costs in this action; and

h. Grant such other and further relief as the Court deems just and proper.

VW FOIA, EPA 06/20/2017 2017-FFP_038316

Respectfully submitted,

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VW FOIA, EPA 06/20/2017 2017-FFP_038317

United States v. Volkswagen AG, et al.

APPENDIX A TO COMPLAINT

Identification of the 2.0L Subject Vehicles

Model Year	EPA Test Group	Vehicle Make and Model(s)
2009	9VWXV02.035N	VW Jetta, VW Jetta Sportwagen
2009	9VWXV02.0U5N	VW Jetta, VW Jetta Sportwagen
2010	AVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2011	BVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U5N	VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2012	CVWXV02.0U4S	VW Passat
2013	DVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2013	DVWXV02.0U4S	VW Passat
2014	EVWXV02.0U5N	VW Beetle, VW Beetle Convertible, VW Golf, VW Jetta, VW Jetta Sportwagen, Audi A3
2014	EVWXV02.0U4S	VW Passat
2015	FVGAV02.0VAL	VW Beetle, VW Beetle Convertible, VW Golf, VW Golf Sportwagen, VW Jetta, VW Passat, Audi A3

United States v. Volkswagen AG, et al.

APPENDIX B TO COMPLAINT

Identification of the 3.0L Subject Vehicles

Model Year	EPA Test Group(s)	Vehicle Make and Model(s)
2009	9ADXT03.03LD	VW Touareg, Audi Q7
2010	AADXT03.03LD	VW Touareg, Audi Q7
2011	BADXT03.02UG BADXT03.03UG	VW Touareg Audi Q7
2012	CADXT03.02UG CADXT03.03UG	VW Touareg Audi Q7
2013	DADXT03.02UG DADXT03.03UG DPRXT03.0CDD	VW Touareg Audi Q7 Cayenne Diesel
2014	EADXT03.02UG EADXT03.03UG EPRXT03.0CDD EADXJ03.04UG	VW Touareg Audi Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2015	FVGAT03.0NU2 FVGAT03.0NU3 FPRXT03.0CDD FVGAJ03.0NU4	VW Touareg Audi: Q7 Cayenne Diesel A6 quattro, A7 quattro, A8, A8L, Q5
2016	GVGAT03.0NU2 GPRXT03.0CDD GVGAJ03.0NU4	VW Touareg Cayenne Diesel A6 quattro, A7 quattro,A8, A8L, Q5

To: Ex. 7 Snyder, Jim[Snyder.Jim@epa.gov]
Cc: Mazaitis, Vincent[mazaitis.vincent@epa.gov]; Haynes, Ben[haynes.ben@epa.gov]; Ex. 7
Ex. 7
From: Ex. 7
Sent: Wed 2/3/2016 2:15:12 PM
Subject: RE: Audi Confirmatory Test - VID: HAAC-BAF

Hello Jim,

We have finalized a date for the update mentioned below for the 2017 Audi A4 VID: HAAC-BAF. Previous test date was scheduled for Feb 10th as a placeholder, we would now like to schedule the vehicle for delivery to EPA on February 22nd, with a proposed test date of February 24th. Reason behind this rescheduling is that the engineer will not arrive to perform the update until the end of CW07 (end of next week).

Please contact us if you have any questions or concerns with this rescheduling request.

Regards,

Ex. 7

VWGoA EEO

Ex. 7

From: Ex. 7
Sent: Friday, January 08, 2016 2:26 PM
To: "Jim Snyder' (Snyder.Jim@epamail.epa.gov)' <Snyder.Jim@epamail.epa.gov>
Cc: Mazaitis, Vincent (mazaitis.vincent@epa.gov) <mazaitis.vincent@epa.gov>; Haynes, Ben (haynes.ben@epa.gov) <haynes.ben@epa.gov>; Ex. 7
Ex. 7
Subject: Audi Confirmatory Test - VID: HAAC-BAF

Hello Jim,

Unfortunately we have to delay the planned confirmatory test involving the 2017 Audi A4 VID: HAAC-BAF scheduled for Jan 15th . The delay is due to a pending ECM software update just announced. We expect to be able to test this car the second week of February but will know better as we get closer to that time. In the meantime, please reschedule the test for February 10th if possible as a placeholder. Please contact me or Ex. 7 if you have any questions or concerns.

Regards,

Ex. 7

Emissions Certification Engineer

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone Ex. 7

E-Mai

updated 1-21-2015

National Vehicle and Fuel Emissions Laboratory

2565 Plymouth Road, Ann Arbor, Michigan 48105

EPA Parameters Form 1000-01 for In-Use Testing

EPA Vehicle Control Number: W116RXX-0160

Equivalent Test Weight: 4250 Pounds (Integer Only: Equivalent Test Weight)

Nominal Fuel Tank Capacity: 19.8 Gallons **40% Fill** 7.9 Gallons

Drive Axle: 10

US06 CO Full Useful Life Standard 11.1

7 Rear Drive Off Road
9 Other
10 4-Wheel Drive
11 2-Wheel Drive, Front
12 2-Wheel Drive, Rear
13 Part-time 4-Wheel Drive
15 All Wheel Drive

Mfr. Shift Schedule (if required) FTP HWY US06

Vehicle Target Road-Load Coefficients

A 35.75 Lb-force

B 0.4304 Lb-force/mph

C 0.01746 Lb-force/mph^2

Canister Working Capacity:

140 Grams (Integer Only: Canister Working Capacity)

1 Number of Canisters (Integer Only: Number of Canisters)

2600 Total Canister Volume (cm3)

PLEASE ADD COLD CO PARAMETERS ON THE SECOND TAB OF THIS WORKSHEET

Vehicle Starting Instructions, including Traction Control disabling (with location and description of traction control icon), Start-Stop technology requirements and process for putting the vehicle in neutral (for towing/crabbing):

Please see additional presentation for specific instructions

To avoid unnecessary delays, please provide specific instructions and pictures (if necessary) for the following items:

Canister Loading Process: Please see additional presentation

Fuel Draining Process: Please see additional presentation

ABS Disabling Process: N/A for AWD testing

Fuel Switch Process (Flex Fuel only): N/A

Comments fan position (up/down) and location: Approx. 50 cm in front of center air cooler angle slight down

For internal EPA Use Only:

This information was obtained from:

* Letter, e-mail, fax or other document delivered from the manufacturer
  (attach any additional information from the manufacturer to this form)
* Verbal instruction from the manufacturer's representative
* Other (specify)

Config. No

Manufacturer Representative: _____ *Date:* _____

Jacobs Representative: _____ *Date:* _____

EPA Representative: _____ *Date:* _____

National Vehicle and Fuel Emissions Laboratory
2565 Plymouth Road, Ann Arbor, Michigan 48105

EPA Parameters Form 1000-01 for In-Use Testing

EPA Vehicle Control Number: W116RXX-0160

Cold CO Target Road-Load Coefficients

A	39.32	Lb-force
B	0.4735	Lb-force/mph
C	0.01921	Lb-force/mph^2

Cold CO Test

Special Instructions for Heater and Defroster Control:

For EPA use only:

Test procedures:

All in the class:

		PM?		
FTP	X		Fuel Type	
HWY	3			
US06	90			
Other			Procedure:	

21 Fed fuel FTP-3 bag
21.04 Fed fuel FTP-4 bag
25 CA fuel FTP
25.04 CA fuel FTP-4 bag
99 Other

At least one per class (if possible)

Evap	x		
Cold Test	11	Cold Test Fuel Type	

23 fed fuel evap-3 bag
23.04 fed fuel evap-4 bag
27 CA fuel evap

Regeneration instructions (if necessary):

Special refueling instructions (if necessary):

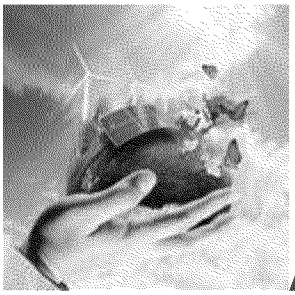
Special prep instructions (if necessary):

Other instructions (if necessary):

FUELS:
19 Cert Diesel 7-15 ppm Sulfur
23 CARB Phase II Gasoline
26 Cold CO Regular (Tier2)
61 Tier 2 Federal Fuel

To: Allnutt, David[Allnutt.David@epa.gov]; Anderson, Lea[anderson.lea@epa.gov]; Anderson, Steve[Anderson.Steve@epa.gov]; Aranda, Amber[aranda.amber@epa.gov]; Averback, Jonathan[Averback.Jonathan@epa.gov]; Belser, Evan[Belser.Evan@epa.gov]; Bianco, Karen[Bianco.Karen@epa.gov]; Bogoshian, Matthew[Bogoshian.Matt@epa.gov]; Branning, Amy[Branning.Amy@epa.gov]; Bunker, Byron[bunker.byron@epa.gov]; Chapman, Apple[Chapman.Apple@epa.gov]; Choi, Jake[Choi.Jake@epa.gov]; Cozad, David[Cozad.David@epa.gov]; Crum, Lynda[Crum.Lynda@epa.gov]; Crystal, Roy[crystal.roy@epa.gov]; Davis, Julian[davis.julian@epa.gov]; Dickinson, David[Dickinson.David@epa.gov]; Dierker, Carl[Dierker.Carl@epa.gov]; Dolph, Becky[Dolph.Becky@epa.gov]; Doster, Brian[Doster.Brian@epa.gov]; Dubey, Susmita[dubey.susmita@epa.gov]; Dubois, Roland[Dubois.Roland@epa.gov]; Frey, Bert[frey.bertram@epa.gov]; Froikin, Sara[Froikin.Sara@epa.gov]; Giles-AA, Cynthia[Giles-AA.Cynthia@epa.gov]; Graham, Cheryl[Graham.Cheryl@epa.gov]; Harrison, Ben[Harrison.Ben@epa.gov]; Hoffman, Howard[hoffman.howard@epa.gov]; Hogan, Stephanie[Hogan.Stephanie@epa.gov]; Holmes, Carol[Holmes.Carol@epa.gov]; Igoe, Sheila[Igoe.Sheila@epa.gov]; Jordan, Scott[Jordan.Scott@epa.gov]; Kaplan, Robert[kaplan.robert@epa.gov]; Kataoka, Mark[Kataoka.Mark@epa.gov]; Klepp, Robert[Klepp.Robert@epa.gov]; Knapp, Kristien[Knapp.Kristien@epa.gov]; Lee, Michael[lee.michaelg@epa.gov]; Lovett, Lauren[Lovett.Lauren@epa.gov]; Mackey, Cyndy[Mackey.Cyndy@epa.gov]; Manners, Mary[manners.mary@epa.gov]; Marks, Matthew[Marks.Matthew@epa.gov]; Matthews, Julie[Matthews.Juliane@epa.gov]; McConkey, Diane[Mcconkey.Diane@epa.gov]; Mclean, Kevin[Mclean.Kevin@epa.gov]; Moore, Bruce[Moore.Bruce@epa.gov]; Morgan, Jeanette[Morgan.Jeanette@epa.gov]; Muller, Sheldon[Muller.Sheldon@epa.gov]; Niebling, William[Niebling.William@epa.gov]; Nguyen, Quoc[Nguyen.Quoc@epa.gov]; Adair, Jocelyn[Adair.Jocelyn@epa.gov]; Odendahl, Steve[Odendahl.Steve@epa.gov]; Okoye, Winifred[Okoye.Winifred@epa.gov]; Orlin, David[Orlin.David@epa.gov]; Pastorkovich, Anne-Marie[Pastorkovich.Anne-Marie@epa.gov]; Roberts, Martha[Roberts.Martha@epa.gov]; Rodman, Sonja[Rodman.Sonja@epa.gov]; Rowland, John[Rowland.John@epa.gov]; Schaaf, Eric[Schaaf.Eric@epa.gov]; Schmidt, Lorie[Schmidt.Lorie@epa.gov]; Senn, John[Senn.John@epa.gov]; Shenkman, Ethan[Shenkman.Ethan@epa.gov]; Silverman, Steven[silverman.steven@epa.gov]; Smith, Kristi[Smith.Kristi@epa.gov]; Snyder, Doug[Snyder.Doug@epa.gov]; Srinivasan, Gautam[Srinivasan.Gautam@epa.gov]; Stahle, Susan[Stahle.Susan@epa.gov]; Starfield, Lawrence[Starfield.Lawrence@epa.gov]; Stern, Allyn[Stern.Allyn@epa.gov]; Tate, Ragan[Tate.Ragan@epa.gov]; Thrift, Mike[thrift.mike@epa.gov]; Tierney, Jan[tierney.jan@epa.gov]; Ting, Kaytrue[Ting.Kaytrue@epa.gov]; Tsirigotis, Peter[Tsirigotis.Peter@epa.gov]; Versace, Paul[Versace.Paul@epa.gov]; Vetter, Rick[Vetter.Rick@epa.gov]; Walker, Mike[Walker.Mike@epa.gov]; Ward, W. Robert[Ward.Robert@epa.gov]; Werner, Jacqueline[Werner.Jacqueline@epa.gov]; Wilcox, Geoffrey[wilcox.geoffrey@epa.gov]; Williams, Brent[Williams.Brent@epa.gov]; Williams, Melina[Williams.Melina@epa.gov]; Williamson, Timothy[Williamson.Tim@epa.gov]; Zenick, Elliott[Zenick.Elliott@epa.gov]; Wills, Jennifer[Wills.Jennifer@epa.gov]; Conger, Nick[Conger.Nick@epa.gov]; Blake, Wendy[Blake.Wendy@epa.gov]; Schramm, Daniel[Schramm.Daniel@epa.gov]; Vergeront, Julie[Vergeront.Julie@epa.gov]; Tozzi, Lauren[Tozzi.Lauren@epa.gov]; Coursen, David[Coursen.David@epa.gov]; Pilchen, Zach[Pilchen.Zach@epa.gov]; Skinner-Thompson, Jonathan[Skinner-Thompson.Jonathan@epa.gov]; Vijayan, Abi[Vijayan.Abi@epa.gov]; Roder, Aileen[Roder.Aileen@epa.gov]; Walker, Denise[Walker.Denise@epa.gov]; Caballero, Kathryn[Caballero.Kathryn@epa.gov]; Thompson, Christopher[Thompson.Christopher@epa.gov]; Williams, Christopher[Williams.Christopher@epa.gov]; Matthew, Dayna[Matthew.Dayna@epa.gov]; Reid, Lauren[Reid.Lauren@epa.gov]; Hammons, Jeffrey[Hammons.Jeffrey@epa.gov]; Morris, Rachel[Morris.Rachel@epa.gov]; Nguyen, DucH[Nguyen.DucH@epa.gov]; Jordan, Deborah[Jordan.Deborah@epa.gov]; Charlton, Tom[Charlton.Tom@epa.gov]; Kulschinsky, Edward[Kulschinsky.Edward@epa.gov]; Portmess, Jessica[Portmess.Jessica@epa.gov]; Kaminer, Joan[Kaminer.Joan@epa.gov]; Kryman, Matthew[Kryman.Matthew@epa.gov]; Greenglass, Nora[Greenglass.Nora@epa.gov]; Spina, Providence[Spina.Providence@epa.gov]; Firestine, Natalie[firestine.natalie@epa.gov]; Bond, Alexander[Bond.Alexander@epa.gov]; Palmer, Karen[Palmer.Karen@epa.gov]; Seidman, Emily[seidman.emily@epa.gov]; Conrad, Daniel[conrad.daniel@epa.gov]; OGC

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From: Turley, Jennifer
Sent: Wed 2/3/2016 4:32:49 PM
Subject: Air & Radiation Law News for February 3, 2016



Air & Radiation Law News

for February 3, 2016

Bloomberg BNA **Daily Environment Report™**

Air Pollution

Roadbuilders Ask Court to Reconsider Engine Ruling

A federal appeals court should clarify language used in an opinion on California nonroad diesel engine standards to avoid ruling on whether those California standards can be legally adopted by another state, a transportation industry group...

Air Pollution

U.S. Chamber Highlights Costs of Brick Rules Before Hearing

The U.S. Chamber of Commerce alleged that federal regulators relied on unrealistic assumptions to

support claims that regulations for brick production facilities would have a low economic burden, potentially previewing industry testimony...

Air Pollution

Volkswagen Sales Decline 14.6 Percent in January

Volkswagen of America Inc. saw its U.S. sales fall about 14.6 percent in January compared to the same month in 2015, the third month in a row that the company has reported significant sales declines. Sales figures released by Volkswagen Feb....

Air Pollution

VW Submits Recall Plan for 3-Liter Diesels to California

Volkswagen AG submitted its draft recall plan Feb. 2 for about 85,000 VW, Audi and Porsche vehicles with 3-liter diesel engines to the California Air Resources Board. The same plan is also due to be filed with the U.S. Environmental Protection...

Asbestos

Asbestos Bill Hearing Set as Crane Files RICO Suits

The Senate Judiciary Committee is set to consider an asbestos bankruptcy trust overhaul bill Feb. 3 aimed at what its business proponents say is abusive litigation tactics by the plaintiffs' attorneys (John Crane Inc. v. Simon Greenstone...

Biodiversity

EU Must Not Undermine Conservation Laws, Lawmakers Say

European Parliament lawmakers Feb. 2 sought to safeguard two key European Union conservation laws against changes by adopting a nonbinding resolution calling for their reinforced implementation as part of a drive to meet a number of EU 2020...

Climate Regulation

NRDC, Industry Agree on Phaseout of Certain Refrigerants

An industry group and the Natural Resources Defense Council are asking the Environmental Protection Agency to require the phaseout of certain refrigerants currently used in liquid chilling packages, according

to a letter sent Feb. 1. ...

Climate Regulation

Republican Convention Won't Delay Coal Jobs Case

Murray Energy Corp. withdrew a motion Feb. 1 seeking to delay the start of a trial on the impact of Clean Air Act regulations on jobs so that its chairman could attend the Republican National Convention in Cleveland (Murray Energy Corp. v. EPA,...

Elections

Partisan Divide on Climate Evident After Iowa Caucuses

Republicans and Democrats have sharply divergent views of how to respond to environmental challenges and nowhere was that more evident than in candidate speeches Feb. 1 after the conclusion of the Iowa caucuses....

Emissions Trading

RGGI Evaluates Clean Power Plan Compliance Options

The nine states in the Regional Greenhouse Gas Initiative (RGGI) would reduce carbon emissions annually by 2.5 percent and eliminate flexibility measures such as offsets under one potential scenario to meet federal limits on carbon dioxide...

Energy

Cruz Win Hits Corn's Clout, Emboldens Senate Ethanol Foes

Sen. Ted Cruz's victory in the Iowa Republican caucuses emboldens other critics of federal biofuel mandates just as the Senate is poised to consider a measure that would gut the decade-old program....

Energy

FERC Backs Rate-Setting Bill, Criticizes Gas Pipeline Bill

The Federal Energy Regulatory Commission said it supported a bill to allow ratepayers to contest unfair electricity rates, but raised concerns about another bill giving equal weight to aerial and ground surveying in gas pipeline siting,...

Energy

Senate Rejects Several Energy Bill Amendments

Senate Majority Leader Mitch McConnell (R-Ky.) filed for cloture Feb. 2 on a broad Senate energy bill as work on the legislation drew near to a close. ...

Energy

Why Heritage Action Didn't Lobby on Murkowski's Energy Bill

Despite issuing a "key vote" against the energy package by Sen. Lisa Murkowski (R-Alaska), Heritage Action wasn't one of the 162 groups that tried to influence the bill before it came to the floor. Instead, the conservative...

Enforcement

California Joins Lawsuit Over Natural Gas Leak

The California Attorney General's Office took action Feb. 2 against Southern California Gas Co. over the ongoing leak at the utility's underground natural gas storage field near Los Angeles (California v. S. Cal. Gas Co., Cal. Super....

International Climate

Opponents Say U.S. Reached Lopsided Deal in Paris

The next U.S. president should opt out of the global climate change agreement reached in Paris because it imposes lopsided obligations on the nation while extracting only modest pledges of climate action from developing nations, opponents...

Mining

W.Va. Homeowners Want Damages From Coal Companies

A federal judge denied two coal companies' motion to dismiss a lawsuit alleging mining activities caused subsidence damage to a West Virginia property (Schoene v. McElroy Coal Co., N.D. W.Va., No. 5:13-CV-95, , 1/29/16)....

Pipeline Safety

PHMSA Warns of Storage Facility Failures, Cites Aliso Canyon

The Transportation Department in a Feb. 2 bulletin urged owners and operators of underground pipeline and storage facilities for natural gas to maintain the safety and integrity of their facilities in light of the ongoing natural gas leak...

Renewable Energy

CDP to Reward Companies That Purchase Renewable Power

A small change to the way companies report their carbon footprint could spark fresh demand for renewable energy....

Renewable Energy

U.K. Could Lose Billions in Funding for Climate, Renewables

The U.K. risks losing out on billions of pounds of investment in renewable energy projects such as wind farms and grid upgrades if it quits the European Union and ditches its stake in the European Investment Bank....

Sustainability

AES, NorthWestern Stockholders Could Vote on Green Items

Shareholders at AES Corp. and NorthWestern Corp. could be voting on climate and energy-related measures after staff at the Securities and Exchange Commission rejected the companies' bids to omit them from their proxy materials....

Vehicle Fuels

Think Crude Oil's Cheap? Some Biodiesel Is Going for Free

Biodiesel has become so cheap in the U.S. that some refiners are being paid to use it....

CORRECTION

In an article published Jan. 21 in Daily Environment Report on emissions problems with vehicles manufactured by Fiat Chrysler Automobiles NV, the EPA cap on tailpipe carbon dioxide emissions was incorrectly stated. The EPA will cap tailpipe...



Inside EPA's **Environmental Policy Alert,** 02/03/2016

http://insideepa.com/newsletters/environmental-policy-report

Latest News

Setting Precedent, NRDC, Industry Reach Agreement On HFC Phaseouts

Environmentalists and industry groups are jointly asking EPA to extend and synchronize any proposed deadline to phase out several hydrofluorocarbons (HFCs) -- high global warming potential (GWP) refrigerants -- in commercial chillers, opening the door for similar talks over chemicals used in other appliances that advocates had petitioned the agency to ban.

Appellate Rulings Underscore Limits On Environmental Law Citizen Suits

A pair of recent appellate court rulings blocking citizen groups' suits trying to enforce federal air and water laws underscore limits that judges have placed on such cases, legal observers say, highlighting the need for advocates to ensure they quickly intervene in other enforcement cases filed by regulators to push for major penalties.

D.C. Circuit Urged To Avoid Unintended Mobile Source Air Rule Precedent

Road builders are asking the U.S. Court of Appeals for the District of Columbia Circuit to revise its opinion sending the industry's suit over an EPA approval of California's "in-use" non-road engine air rules to the 9th Circuit, warning that the ruling as written inadvertently implies that the in-use restrictions could be adopted by other states.

News Briefs

Cruz Victory In Iowa Spurs Debate Over RFS' Future

Sen. Ted Cruz's (R-TX) victory in the Feb. 1 Iowa Republican presidential caucus is spurring debate over whether it signals dwindling support for EPA's renewable fuel standard (RFS), with RFS critics saying the result is a major defeat for the ethanol lobby while supporters of ethanol say the RFS has gained support

across the state.

Greenwire

TRANSPORTATION:

Starry-eyed engineers embrace Musk's Hyperloop dream

Ariel Wittenberg, E&E reporter

Published: Tuesday, February 2, 2016

COLLEGE STATION, Texas -- Welcome to the 21st century space race: The goal isn't to put a man on the moon, it's getting a traveler from Los Angeles to San Francisco in 30 minutes or less.

That's the Hyperloop vision of SpaceX and Tesla Motors CEO Elon Musk. And thousands of students converged on Texas A&M University last weekend in a bid to make this "fifth mode of transportation" happen.

Three years ago, Musk published a white paper proposing his idea for revolutionizing transit by transporting passengers in a pod traveling at subsonic speeds of 750 mph through a tube, somewhat similar to the old pneumatic office mail delivery systems (*ClimateWire*, Aug. 13, 2013).



Transportation Secretary Anthony Foxx stops by the exhibition for Embry-Riddle Aeronautical University at the Hyperloop competition. Photo by Ariel Wittenberg.

Too busy building rockets and electric vehicles, Musk is merely interested in facilitating Hyperloop, creating a competition for students to design pods for the system (*E&ENews PM*, June 15, 2015).

The more than 100 teams at Texas A&M were semifinalists chosen from a field of 1,700 applicants. At the end of the weekend, SpaceX gave the 22 finalists $150,000 each to build prototypes that will be raced on a test track at company headquarters this summer.

In his paper, Musk described Hyperloop as the most promising solution to congestion, pollution and the high cost of high-speed rail "short of figuring out real teleportation, which would of course be awesome."

Skeptics laughed off the proposal as something from "Star Trek." Today they remain doubtful, calling the pipe dream too far out to ever replace high-speed rail.

But a little bit of cynicism didn't bother the competitors in Texas.

Advertisement

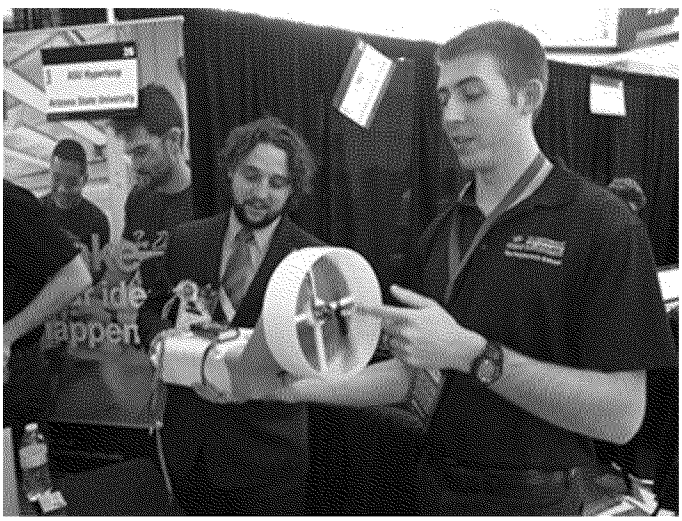
"Everything is science fiction until someone finds a way to make it science," said Patrick McKeen, a junior from Harvey Mudd College in Claremont, Calif.

'There is no try'

The tension between fantasy and reality was palpable at Texas A&M, where contestants debated the merits of using magnets or highly pressurized air to levitate their pods while snacking on "Star Wars" gummy candies provided by the university. Texas A&M custom-labeled each candy packet with a quote from Yoda in "The Empire Strikes Back": "Do. Or do not. There is no try."

The magnet-versus-air question is perhaps one of the largest unanswered aspects of Hyperloop; suspending the pods within a low-air-density tube is critical for eliminating enough friction to get the pods up to speed.

"Once we get the pod lifted up, you can basically slingshot it through the tube as fast as you want," explained Arizona State University junior Cody Van Cleve, whose team opted for the "air barring system" many describe as being similar to an air hockey table.



Cody Van Cleve (left) and Josh Kosar show off a model pod from Arizona State University Polytechnic. Photo by Ariel Wittenberg.

Competitors this weekend each had their own exhibition space where they were able to display neon-colored, 3-D-printed miniatures of their proposed pods, computer models showing how passengers would react when traveling at high speeds, and "proof of concept" displays of magnetic field technology and air bearings they intended to deploy.

Most of the students involved in the competition did so as an extracurricular activity because of the fervor they feel for Hyperloop, Musk or both. Such was the case for the Massachusetts Institute of Technology's team, which placed first in the competition and whose students are also working on individual graduate theses on "completely different" topics.

"This is our hobby," MIT mechanical engineering doctoral student Peter Chamberlain said. "We study by day and build rocket ships by night."

For the handful of non-university teams in the competition, that scenario is taken to the extreme. Team rLoop met each other online, in a Reddit comment thread about SpaceX's innovations. Until it won the prize for non-student teams Sunday, rLoop had no outside funding and used resources that members could secure as part of their day jobs, said project leader Tom Lambot, who works at NASA's Ames Research Center in Silicon Valley, Calif.

Lambot was one of the few people at Texas A&M willing to admit he is not 100 percent sure a Hyperloop will actually be built.

"For me, I always consider a project from the point of view of if I fail, what will I get out of it?" he said. "I do think there is a way to have a better transportation system. Is this the answer? I hope so. But if we don't get there with this, maybe something we find from this exercise will lead to the answer."

'It's very real'

Two independent startups think they already have it.

The similarly named Hyperloop Transportation Technologies and Hyperloop Technologies were each formed shortly after Musk published his white paper, in an effort to commercialize the concept on their own.

Hyperloop Transportation Technologies has already filed for a conditional permit in Quay Valley, Calif., to build the first 5 miles of what will eventually be a fully operating system between San Francisco and Los Angeles, said Chief Operating Officer Bibop Gresta.

Gresta didn't always believe the hype. When his eventual business partner, Dirk Ahlborn, originally approached him asking for help with Hyperloop, he balked.

"He said, 'I want to build the Hyperloop,' and I said, 'Yes, and I want to be president of the United States, so what?'" said Gresta, who is Italian.

But Ahlborn had compiled a team of scientists and engineers who had analyzed Musk's idea and determined it was feasible. Reading their assessment won Gresta over.

"It is a global call to action," he said. "And you better get up to speed, get up to 750 miles per hour, because this is happening in the 21st century."

The team at Hyperloop Technologies is also working toward what Chief Technology Officer Brogan BamBrogan calls its "Kitty Hawk moment." The company expects to prove its concept on a test track outside Las Vegas this year and to build a real Hyperloop by 2020.

"Hyperloop, as a concept, it's very real," BamBrogan said. "The trick now is to bring it onto the market in a way that could actually be a fully integrated transportation system."



Scott Santandrea, vice president of development at Arx Pax Labs, shows off his company's maglev technology. Photo by Ariel Wittenberg.

Both Gresta and BamBrogan share Musk's vision of a world with not just one Hyperloop, but multiple systems around the globe.

Others are hopping aboard.

Circulating the Texas A&M exhibition hall this weekend were entrepreneurs and companies looking for a worthy investment among the competitors. Representatives from engineering heavyweight Aecom, law firm Cooley and TV network Nickelodeon were among the big fish that teams were hoping to reel in.

Meanwhile, Arx Pax Labs, which has invented its own maglev technology of motorized spinning magnets, was exhibiting at the competition, trying to persuade teams to use its innovation when they begin constructing actual pods.

Arx Pax Labs Vice President of Development Scott Santandrea said his technology was originally invented to levitate buildings during earthquakes, minimizing damage. Then the company heard about Hyperloop and found an "instant market."

"We realized it is really the perfect implementation for our technology," he said.

'Speculative fiction'

Of course, Hyperloop's critics didn't disappear when the competition was announced or when new companies began trying to monetize the concept.

Much of the judgement comes from those who believe truly in high-speed rail and, particularly, in a $68 billion project proposed between Los Angeles and San Francisco -- the same route Musk wants to derail with a cheaper, faster Hyperloop (*ClimateWire*, Aug. 22, 2013).

Jon Christensen, a senior researcher and adjunct assistant professor at the Institute of the Environment and Sustainability at UCLA, said he is turned off by the supposed competition between rail and Hyperloop.

"The fact is that Hyperloop remains a speculative fiction, where alternatively we have a real technology

that is already in use around the world to get people quickly between densely populated areas," he said. "High-speed rail is a technology that is proven and ready to go."

While Christensen said the idea of a completely solar-powered Hyperloop is attractive, he called it a "dangerous distraction" to high-speed rail, which also does not emit any greenhouse gases.

"History is littered with attractive transportation technologies people proposed that never got off the ground -- from jet packs to hoverboards," he said. "The danger is if we focus on one of these fictions, then we ignore the pragmatic solutions that are right in front of us."

Andy Kunz, president and CEO of the U.S. High Speed Rail Association, agrees.

"I'm all about innovation, but what really pisses me off is that we keep pretending that the next great invention is right around the corner and we wait for something that never comes," he said. "That's why we have the most backward transportation system on earth."

'Seeing is believing'

The Hyperloop competitors are no strangers to skeptics.

The Auburn University team, which won awards for design concept innovation and best overall substation, said the dean of its engineering school almost didn't allow it to put the university's logo on its pod.

"He basically said that's too weird, it's too conceptual for us," team leader Addison Baitcher said. "We had to prove to them that we weren't doing anything too outlandish, that it was the same engineering principles we use every day; we are just creating something completely unique."

The group from the University of Edinburgh, which won an award for subsystem technical excellence, said it encountered similar resistance from the school. The university only allowed the team to use its logo after it made it to the design weekend in Texas.

"They weren't excited about the idea at all; they said we didn't have anything substantive," Hirsh Agarwal said.

To show the university it was "missing out on the revolution," the team asked visitors to its exhibit to sign a poster in support.

"We want to show them that this is real, that we have folks from SpaceX, from Tesla, an astronaut, all of these people who say, 'Get on board, Hyperloop is leaving the station,'" he said.

One person who has been looking toward Hyperloop with a hopeful, if watchful, eye is Transportation Secretary Anthony Foxx, who gave the keynote address at the competition Friday and said the federal government should "lean in" to transportation innovation.

Though he initially considered Hyperloop "impractical because it faced seemingly insurmountable barriers," Foxx said scientists have convinced him it is "a very solid idea."

Now, he said, DOT would consider using the University Transportation Centers Program to fund Hyperloop research.

"We have a responsibility not just to continue the conventional forms of transportation, we have the

responsibility to continue nudging the future along and stretching along with the innovators and people who think we can do better," he said. "That's why I'm here."

Foxx drew a line between Musk's call for a Hyperloop and President John F. Kennedy's call to put a man on the moon, saying, "That pushed American innovation a long way, and I think we have the same potential for a moonshot here."

That is exactly what Musk intended, as he told the students himself when he made a surprise appearance at the awards ceremony in Texas on Sunday.

He was greeted by a roaring crowd that would seem more at home at a Beatles concert than an engineering competition, with students sitting on each other's shoulders to get a better look at their hero.

On stage, Musk told the students how he had encountered skepticism throughout his career, recounting how a friend once made Musk watch a video compilation of rockets exploding after hearing Musk say he wanted to start SpaceX.

"They always say it's crazy, but seeing is believing," Musk said.

Musk said he was impressed with the ideas proposed so far at the competition: "I am starting to think that this is really going to happen.

"It is clear that the public and the world wants something new, and I think you guys are going to bring it to them," he said.

ENERGY POLICY:

Net-metering amendment rankles power sector

Geof Koss, E&E reporter

Published: Tuesday, February 2, 2016

Correction appended.

Top utility groups have come out against an amendment to the Senate's energy bill that aims to limit state regulators from imposing new rates for net-metering policies.

In a letter sent to senators, the American Public Power Association, Edison Electric Institute and National Rural Electric Cooperative Association warn the amendment by Sen. Angus King (I-Maine) and Minority Leader Harry Reid (D-Nev.) "would impose prescriptive electricity policies on the states and on certain localities and would intrude on critical retail electric service decisions that are -- and have always been -- subject to the authority of states, localities and rural electric cooperatives."

"This federal, one-size-fits-all mandate should be rejected," the groups wrote.

The King-Reid amendment addresses the ongoing battles playing out over rooftop solar in states such as Nevada by imposing new conditions on state regulators in changing rate classifications for net metering.

Advertisement

Specifically, the amendment would bar rate increases unless a utility or regulator "demonstrates, in an evidentiary hearing in a general rate case, that the current and future net benefits of the net metered system to the distribution, transmission and generation systems of the electric utility are less than the full retail rate."

The amendment also would bar higher rates for net metering unless the same rate is applied to all consumers in the rate class.

Opposition from major utility groups is likely to make it harder for Democrats to secure a vote on the amendment, and one Senate Democratic aide said the letter exaggerates its effect on public utility commissions.

"PUCs would still retain discretion whether or not to adopt the consumer protection standards for solar customers," the aide said.

"Basically, the amendment requires state regulators to consider the standard prior to making changes to existing residential net-metering customers," the aide added. "The amendment is important because it would require that state regulators consider adopting the standards and protecting consumers from retroactive changes to their net-metering agreements with utilities. It's a shame utilities are afraid of even having that considered."

More amendments

Senate Energy and Natural Resources Chairwoman Lisa Murkowski (R-Alaska) today noted that 235 amendments had been filed to the underlying bill (S. 2012) as of this morning and urged colleagues thinking about filing more to do so quickly.

"We've got a lot to sort through," she said on the floor this morning as amendments continued to line up in the queue.

Sen. Pat Toomey (R-Pa.) has filed an amendment that would dictate to U.S. EPA how to regulate emissions from existing power plants that convert coal refuse to energy.

Sens. Heidi Heitkamp (D-N.D.) and Shelley Moore Capito (R-W.Va.) have a proposal to "clarify" that projects at existing power plants intended to boost efficiency or curb emissions are not subject to new source reviews under the Clean Air Act.

Heitkamp and Capito have also filed a "sense of the Senate" amendment affirming a federal commitment to carbon capture utilization and storage technology.

Democratic Sens. Brian Schatz of Hawaii and Sheldon Whitehouse of Rhode Island have filed a new amendment phasing out a number of fossil fuel tax incentives on the same schedule that the renewable production tax credit is phased down on.

The two senators also are working on climate-related amendments, although Whitehouse this morning said they were "still in the process."

Afternoon votes

The Senate at 2:30 p.m. will vote on an amendment by Sen. Mike Lee (R-Utah) that would sunset national monument designations after three years unless Congress and the home-state legislature enact legislation making the monuments permanent.

That proposal has drawn a flurry of opposition, with more than 100 groups penning a letter in opposition. Also weighing in against the proposal are the National Association for the Advancement of Colored People and major Native American tribes.

The chamber also will vote on an amendment by Sen. Al Franken (D-Minn.) that would establish a national energy efficiency resource standard.

Murkowski this morning said both sides are working toward a deal to hold additional roll call votes today.

The chamber will also vote this afternoon on:

- An amendment by Sen. Mike Rounds (R-S.D.) that would direct the Interior and Agriculture departments to create a conservation incentives landowner education program.
- An amendment by Sen. John Barrasso (R-Wyo.) to expedite permits for natural gas gathering lines on federal and tribal land.
- An amendment by Sen. Dan Sullivan (R-Alaska) requiring federal agencies to repeal or amend one regulation before issuing or revising a rule.
- An amendment by Sen. Brian Schatz (D-Hawaii) to phase out fossil fuel tax breaks according to the schedule that wind incentives wind down.
- A proposal by Sen. Dick Durbin (D-Ill.) to increase funding for the Energy Department's Office of Science.
- An amendment by Sen. Sheldon Whitehouse (D-R.I.) to require campaign finance disclosures for certain persons who benefit from fossil fuels.

***Correction**: An earlier version of this article listed Angus King as a Vermont senator; he is a Maine senator.*

ENERGY POLICY:

Aerial surveys could delay pipeline permits -- FERC official

Hannah Hess, E&E reporter

Published: Tuesday, February 2, 2016

Legislation to incorporate aerial survey data into the Federal Energy Regulatory Commission's approval process for natural gas infrastructure could lead to unintended consequences by delaying or adding costs to some projects, a senior FERC staffer told a House panel today.

The House Energy and Commerce Subcommittee on Energy and Power was considering H.R. 3021, by Rep. Mike Pompeo (R-Kan.), a member of the committee. The bill would amend the Natural Gas Act to provide that data collected by aerial survey would be accepted in lieu of ground survey data for FERC's natural gas project "pre-filing" process and for completing applications associated with federal authorizations related to such projects. Under the law, FERC is the lead coordinator among federal agencies for processing environmental reviews for natural gas projects under its jurisdiction.

Republicans say the bill is an overdue measure that would speed up the federal approval process and facilitate the construction of new pipelines. The bill has two Democratic co-sponsors -- Oregon Rep. Kurt Schrader, a member of the Energy panel, and New York Rep. Gregory Meeks -- but other Democrats resisted the proposal, saying it would be a brazen effort to strip landowners and local agencies of their ability to participate meaningfully in the gas pipeline siting process. They objected to language in the bill that would require different survey methods to be given equal weight.

Ann Miles, director of FERC's Office of Energy Projects, said commission staff currently accepts aerial survey data, though most project applications include ground surveys for a significant portion of the right of way. She expressed concern that waiting to verify large amounts of aerial data until late in the project development process, or after a certificate is issued, could pose difficulties. Miles suggested a project's impact on historical properties or endangered species might be hard to determine without ground surveys.

"With regard to endangered species, considering the time and money spent protecting [animals], isn't it safe to assume we know where habitats are?" Pompeo asked. He also said the National Register of Historic Places Database means those sites are "not hard to figure out."

Miles and other witnesses cited challenges to identifying endangered plants and wildlife and said some archaeological and cultural sites have not yet been identified.

Edward Lloyd, an environmental law professor speaking on behalf of the New Jersey Conservation Foundation and Stony Brook-Millstone Watershed Association, said fewer than 1 percent of the 1,001 threatened and endangered plant and animal species found in the Garden State can be identified by aerial surveys, and the technique is insufficient for identifying wetlands along proposed routes.

"I think all of us want the best data we can have. The problem is that aerial surveys are not going to get us the data that we need," Lloyd said. Pipeline routes may have to be changed after initial approvals by FERC, which would only "drain more resources from the agency."

Though FERC currently accepts aerial survey data for the purposes stated in the bill, Miles said she could not speak to the extent to which agencies such as the Fish and Wildlife Services, the Army Corps of Engineers and state governments are able to use aerial survey data as a policy or practical consideration.

Rep. Paul Tonko (D-N.Y.), ranking member of the Subcommittee on Environment and the Economy, called the bill "a solution in search of a problem" that would "promote expediency at the expense of property owners' rights."

COAL:

No GOP convention delay in *Murray v. EPA* trial

Dylan Brown, E&E reporter

Published: Tuesday, February 2, 2016

Murray Energy Corp. yesterday withdrew its request to postpone trial in a lawsuit by the company against U.S. EPA to allow CEO Robert Murray to attend the Republican National Convention.

"Mr. Murray has been able to resolve the conflict which prohibited his attendance at trial," the company wrote in a motion submitted to the U.S. District Court for the Northern District of West Virginia. "Plaintiffs, therefore, respectfully withdraw their motion to modify the trial date."

Murray Energy had asked for a new trial date because the current schedule coincides with the convention in Cleveland, Ohio -- the home state of what has become the nation's largest privately held coal company (*Greenwire*, Jan. 25).

EPA did not object to the Jan. 22 court filing, which listed Murray as a key witness and "a very active member of the Republican Party, both nationally and in Ohio."

Murray Energy is accusing EPA of not properly assessing the potential economic impacts of recent environmental regulations as required by the Clean Air Act (*Greenwire*, Dec. 9, 2015).

The 4th U.S. Circuit Court of Appeals already blocked Murray's attempt to depose EPA Administrator Gina McCarthy last year as part of the case.

EMISSIONS:

Industry, greens strike deal on phasing out HFC refrigerants

Amanda Reilly, E&E reporter

Published: Tuesday, February 2, 2016

Environmentalists and industry officials have agreed to a timeline to phase out certain refrigerants that have high global warming potential.

In a letter yesterday to U.S. EPA, the Natural Resources Defense Council and the Air-Conditioning, Heating and Refrigeration Institute said they agreed on an eight-year timeline to phase out three types of refrigerants containing hydrofluorocarbons. The substances are used in air- and water-cooled chillers.

The groups asked EPA to finalize the timeline through its Significant New Alternatives Policy, or SNAP, program, which aims to promote the use of acceptable substitutes for ozone-depleting substances.

The refrigeration industry called the agreement a good example of business and environmental advocates working together to help the environment and provide manufacturers with predictability.

During the eight-year transition period ending Jan. 1, 2025, manufacturers would be responsible for designing and bringing to market chillers that use alternatives that are less potent greenhouse gases.

The transition period would also allow time to change building codes to accommodate the new refrigerants, NRDC and the industry group wrote.

"This schedule provides adequate time for industry to launch products that have been tested and certified by the existing laboratories and certification agencies," the groups wrote.

The proposed timeline comes as nations this year are poised to amend the Montreal Protocol to phase down HFCs (*Greenwire*, Nov. 6, 2015).

Climate advocates say phasing out HFCs is critical to meeting the greenhouse gas reduction goals laid out in the recent international climate change agreement negotiated in Paris.

Limiting HFC use worldwide has the potential to prevent up to 200 billion metric tons of carbon dioxide

equivalent from being released into the atmosphere by 2050 and could avoid up to 0.5 degree Celsius of warming by 2100, according to the Institute for Governance and Sustainable Development.

SOCIETY:

Leonardo DiCaprio options rights to eco-disaster movie

Published: Tuesday, February 2, 2016

Oscar-nominated actor and environmental activist Leonardo DiCaprio has purchased the rights to an unpublished environmentally themed young-adult novel, according to *The Hollywood Reporter*.

"The Sandcastle Empire" by Kayla Olson is set in 2049 after climate change has brought humanity to the brink, allowing a radical cabal to seize power. "The Hunger Games"-reminiscent story follows a young girl named Eden who escapes from a labor camp to find information about her missing father and how to topple the cabal.

DiCaprio is a longtime supporter of environmental causes (Ben Child, London *Guardian*, Feb. 2). **-- BTP**

TECHNOLOGY:

Musk set to unveil new version of power-storing batteries

Christa Marshall, E&E reporter

Published: Tuesday, February 2, 2016

It's round two for Tesla Motors Inc.'s plan to bring rechargeable batteries to homeowners to store renewable power.

During a Q&A posted on YouTube yesterday, Tesla CEO Elon Musk said the next version of the Powerwall -- a rechargeable lithium-ion battery designed to work with solar power -- will likely be available this July or August.

"We've got the Tesla Powerwall and Powerpack ... we have a lot of trials underway right now around the world, and we're seeing very good results," said Musk in the video with Tesla customers in Paris on Jan. 29.

"We'll be coming out with version two of the Powerwall probably around July, August this year, which will see further step change in capabilities."

He didn't offer additional details on what the "step change" might be or how the new model would be different, however.

Since their launch last year, the Powerwall and larger Powerpack have been closely watched partly because of Musk's name recognition and also because of their association with Tesla's Gigafactory, the massive battery factory near Reno, Nev. Powerwall is available in a "weekly" model with 10 kilowatt-hours of storage or a daily 7 kWh storage model, with both selling more than $3,000 to installers.

During an earnings call last fall, Musk said that the product was sold out through at least the first half of this year. Australia also installed the first Powerwalls this year, according to a Tesla spokeswoman. And

Green Mountain Power announced in December that it would be the first utility in the country to offer a home battery for customers, with multiple options to purchase Tesla's Powerwall, including a $1.25 daily rental.

"GMP is partnering with customers on an energy transformation that moves away from the 100-year-old grid system," Green Mountain Power CEO Mary Powell said in a statement.

Meanwhile, Bernstein Research said in a research note this week that the recent decision by the Public Utilities Commission of Nevada to change the state's net-metering policy could counterintuitively create the "first U.S. market for residential energy storage," because of the 15,000 to 20,000 state homeowners already with solar installations. They may benefit from storage options, according to the analysis.

"We estimate that, once the Nevada regulatory changes take full effect, a 7kWh battery similar to the Tesla Powerwall could provide annual savings of (less than) $220 per year compared to operating a rooftop solar system without energy storage," the analysis states.

Tesla is facing competition from companies like Sonnen, which recently opened its U.S. headquarters in California and announced a partnership with SolarWorld for a solar-storage package.

Musk also said in Paris that he is "happy" with progress on the Model 3, which is expected to be a mass-market electric car costing around $35,000. The first pictures of it could be available around March, although "we're not going to show everything" until it's closer to production time, he said.

As for low gas prices, Musk said that while low gas prices are affecting electric vehicle sales generally, they will have less of an effect on Tesla "because we have a highly differentiated product."

Last week, Tesla announced that Musk had increased his investment in the company, converting approximately $100 million worth of stock options into stock. He paid more than $50 million in taxes from the transaction but did not sell any shares, Tesla said.

ELECTRICITY:

Free power sinks Puerto Rico into $9B hole

Published: Tuesday, February 2, 2016

Puerto Rico's state-owned utility has given free power to all 78 of the island's municipalities, contributing to the company's $9 billion debt, the largest portion of the territory's $72 billion debt that it says it cannot pay back.

Now there is an initiative to limit the amount of free electricity the utility can dispense.

The Puerto Rico Electric Power Authority, or PREPA, also has given away energy to many of its government-owned enterprises and some for-profit businesses. It has given nothing to the residents of Puerto Rico, who are charged 50 percent more for electricity than on the U.S. mainland.

PREPA has continued these practices for decades, sinking further into debt and borrowing more and more money from bondholders.

The island's free electricity -- which has powered costly public ice-skating rinks, hotels, restaurants and water parks -- has become a part of the island's culture, and some say limiting the free electricity could do more harm than good.

"If the towns don't get free energy, they're going to have to pay for it by increasing their property taxes or something, so the people will end up paying," said Eduardo Bhatia, president of the Puerto Rico Senate.

The free electricity is just one example of PREPA's failed inner workings, and officials will hold hearings starting today to determine what else has contributed to PREPA's overwhelming debt (Mary Williams Walsh, *New York Times*, Feb. 1). **-- AS**

BIOFUELS:

Biodiesel is so cheap, some refiners are paid to use it

Published: Tuesday, February 2, 2016

The price of biofuel in the United States has become so cheap that some refiners are being compensated to use it.

Midwest refiners are buying the fuel for as little as 64.5 cents a gallon, after including a federal gas-tax subsidy and other credits. Additional incentives in California are allowing some customers to receive biodiesel for free.

Last November, the government increased the amount of biodiesel that refiners are mandated to use to a record amount. A month later, Congress also reissued a $1-a-gallon tax credit on the fuel.

U.S. EPA tracks compliance using certificates attached to each gallon of biofuel. Both tax credits and the value of those certificates pushed the final fuel cost.

California's renewable fuel programs combined with federal subsidies drive down the in-state cost even more.

Low price-per-barrel numbers are a result of crude oil's 71 percent decline since 2014, which has driven down the cost of everything from diesel to gasoline, as well as the country's recent commitment to renewable energy in a move to combat climate change (Blewitt/Parker, Bloomberg, Feb. 1). **-- AK**

EPA:

Threats, waste on watchdog's 2016 agenda

Kevin Bogardus, E&E reporter

Published: Tuesday, February 2, 2016

U.S. EPA's internal watchdog is set to have a busy year.

The agency's Office of Inspector General released its annual plan for fiscal 2016 yesterday. The report identifies what EPA's investigators plan to dig into at the agency over the coming year.

The IG's Office of Investigations plans to root out criminal activity at EPA, including financial fraud, employee misconduct and threats directed against the agency's employees.

"We will use advanced forensic analytic methods to perform trend analysis, cross-tabulations, correlations and social media scanning to identify hot-spot risk areas, potential schemes, devices and associated perpetrators," says the report.

"Our investigations develop evidence to identify, prove or disprove wrongdoing in the agency's programs and operations -- more complex than ever through electronic data and fund transmission in a highly decentralized agency and delegated authority," it says.

The IG noted that its investigative office receives hundreds of allegations of wrongdoing at the agency. Investigators then must evaluate those complaints and determine which probes would have the greatest impact in helping the agency.

Yesterday's report gives notice that the EPA IG in December 2015 initiated an overview, or "capping report," that will summarize lessons learned from the investigation of John Beale, a former EPA official who impersonated a CIA spy and ended up being sent to jail (*Greenwire*, Dec. 18, 2013).

"Since the Beale investigation went public in August 2013, we have or will have issued 10 reports in connection with internal controls within the EPA. The capping report will summarize the internal control issues that the EPA needed to address, along with the status of the EPA's implementation of the recommendations made in the 10 audit reports," said the annual plan.

Investigators at the EPA watchdog also plan to look into several other issues, such as developing a risk assessment of the agency's purchase and travel cards. In addition, the IG will look at water security and technical assistance grants and EPA's efforts to reduce emissions from concentrated animal feeding operations, or CAFOs, among other probes.

The EPA IG also will participate with other agency inspectors general on the Hurricane Sandy Fraud Taskforce.

The inspector general has already made a splash this calendar year.

Last month, the IG released a report that cleared EPA of harboring any bias when conducting its controversial assessment of potential large-scale mining in Alaska's Bristol Bay watershed, though investigators raised questions about former agency scientist Phil North (*Greenwire*, Jan. 13).

In another report released in January, the inspector general said EPA needed to improve monitoring of its conference budget after uncovering $350,782 of conference spending that was not reported to the public as required (*Greenwire*, Jan. 7).

RAIL:

Safety board rules out mechanical, track problems in Amtrak crash

Published: Tuesday, February 2, 2016

Federal officials released new documents yesterday showing no problems with the Amtrak train that derailed in Philadelphia last year or with the tracks and signals near the derailment.

The findings leave open the possibility that human error was the cause of the crash that killed eight people (*Greenwire*, May 13, 2015).

The National Transportation Safety Board said it had made no decision on whether the train's engineer,

Brandon Bostian, was to blame for the accident.

In hundreds of pages of documents the board released yesterday, Bostian is recorded telling investigators he hurt his head and did not remember the crash. Bostian said he did not remember the train having mechanical problems but noticed a loud wind noise at one point.

Bostian said he had been concerned when another train reported being hit by a thrown object. A few months later, Bostian said he remembered braking the train and beginning to tip over.

The train was traveling 106 mph in an area of track with a speed limit of 50 mph. Bostian said he remembered accelerating the train because he thought the speed limit before the curve where the train derailed was 80 mph.

"It would be easy to hit the curve a little bit hot by 5 or 10 miles an hour if you weren't being careful and looking very carefully at the cues because it can sneak up on you," Bostian said (Emma Fitzsimmons, *New York Times*, Feb. 1). **-- SP**

AIR POLLUTION:

Chamber of Commerce study rips brick MACT rules

Sean Reilly, E&E reporter

Published: Tuesday, February 2, 2016

Brick manufacturing firms face a crippling struggle to comply with new air toxics standards that will yield relatively little in the way of added health benefits, the U.S. Chamber of Commerce charged today in a report that seeks to link the case study to a broader critique of the federal regulatory apparatus.

"Rules such as these -- that do more harm than good to communities -- should never be allowed to become legally binding requirements," the report says.

It recommends that U.S. EPA conduct in-depth analyses of air quality regulations' effects on employment; it also urges Congress to pass H.R. 185, which would impose new restrictions on federal rulemaking. Dubbed the "Regulatory Accountability Act," the bill has been languishing in the Senate Homeland Security and Governmental Affairs Committee since winning House approval early last year. It has also drawn a White House veto threat.

EPA officials issued the final version of the air pollution regulations on brick makers and ceramics manufacturers last September, some 15 years after the original deadline imposed by the 1990 Clean Air Act amendments. The agency's first attempt at setting the standards in 2003 was struck down by an appellate court; environmentalists later sued to force the issuance of a new rule.

In the new rule, EPA officials predict it will carry a $28 million annual compliance cost while generating at least $48 million worth of net yearly health benefits. But the U.S. Chamber report cites a Brick Industry Association projection that the compliance price tag could be as high as $110 million per year; it also alleges that EPA imposed restrictions on manufacturers well beyond what it had required in the 2003 version of the regulations.

While the agency could have written the new rule to give the industry credit "for emissions reductions already achieved," the report says, "EPA in effect changed the rules for brick plants in the middle of the game."

An EPA spokesman had no immediate comment this morning. The agency has previously estimated that the new rules could cut emissions of hazardous air pollutants by about 375 tons per year but put two to four brick and structural clay manufacturing facilities at "significant" risk of closing.

In 2014, the U.S. brick industry encompassed 70 plants with 217 kilns that employed about 7,000 people, according to the report. It also portrays the industry as still reeling from the effects of a prolonged homebuilding slump, with plants running at only about 40 percent of capacity last year.

The new standards impose costs that are "cripplingly high" but will deliver scant health benefits beyond those provided by the 2003 regulations, the report says. The chamber, the nation's most prominent business lobby, is a long-standing critic of federal environmental regulations. In a speech last month, President and CEO Thomas Donohue labeled EPA a "runaway" agency (*Greenwire*, Jan. 14). The report posted online today is the latest in a series scrutinizing various aspects of the federal regulatory system.

The brick industry air pollution standards are already embroiled in lawsuits from both industry groups and environmentalists (*Greenwire*, Jan. 29). A House Energy and Commerce subcommittee has scheduled a hearing tomorrow on legislation that would block enforcement of the standards until all court challenges are settled (*E&E Daily*, Feb. 1).

In an email this morning, Megan Van Etten, a U.S. Chamber spokeswoman, called the timing of the report's release coincidental but said the organization is happy that the House "is looking into the issue."

AIR POLLUTION:

Officials admit failure to meet regs at 2nd L.A. port terminal

Published: Tuesday, February 2, 2016

Los Angeles officials have conceded that a second shipping terminal at the Port of Los Angeles has not met pollution reduction requirements implemented nearly a decade ago.

The TraPac terminal has not made cargo ships shut down their engines and hook up to shore-based electricity while docked and also has neglected to make all its yard equipment run on the cleanest diesel engines. These requirements were imposed as conditions for the approval of an expansion in 2007.

In October 2015, port officials admitted they had not met pollution- and noise-reduction requirements at a China Shipping North America terminal (*Greenwire*, Oct. 14, 2015; Barboza/Dolan, *Los Angeles Times*, Feb. 2). **-- BTP**

NATURAL DISASTERS:

Pew's Cuttino talks government response, coordination to extreme weather events

Published: Tuesday, February 2, 2016

How are more frequent and complex extreme weather events affecting national preparedness and the government's ability to successfully respond? During today's OnPoint, Phyllis Cuttino, director of the Pew Project on National Security, Energy and Climate, discusses existing challenges to communication and coordination between federal and state government agencies in the response to natural disasters.

Click here to watch today's OnPoint.

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CLIMATEWIRE — Wed., February 3, 2016

READ FULL EDITION

1.PEOPLE:

Oliver Morton on the 'abiding romance' of geoengineering

In Paris last year, nations agreed on a new climate change accord to limit warming in 2100 to below 2 degrees Celsius. It will be difficult to achieve that target without either rapidly weaning the world off fossil fuels, beginning immediately, or developing technologies to remove carbon dioxide from the atmosphere after 2050, according to the Intergovernmental Panel on Climate Change. But there might be a third way forward: geoengineering. Some scientists have said that deliberately altering the environment using technology is the best way to stave off global warming.

TODAY'S STORIES

2.CLEAN POWER PLAN:
RGGI gets mixed signals on mingling with other states

3.PARIS AGREEMENT:
House panel goes another round on Senate advice and consent

4.BUSINESS:
Exxon moves to block bid for climate transparency

5.TRANSPORTATION:
Foxx sees long-term shift to cleaner fuels, new technology

6.DROUGHT:
Forest Service warns climate change brings serious consequences

7.AGRICULTURE:
FAO urges climate resilience for poor farmers

8.FINANCE:
Paris deal likely to boost green bonds to record high in 2016

9.OCEANS:
East Coast set to see higher sea-level rise than West

10.NATIONS:
U.K. greenhouse gas emissions levels drop

11.SOCIETY:
Leonardo DiCaprio says 'Revenant' opened his eyes on climate change

AN E&E PUBLISHING SERVICE

ENERGYWIRE — Wed., February 3, 2016

READ FULL EDITION

1.METHANE LEAK:

PHMSA hints at new rules for gas storage industry

Federal pipeline regulators told the gas storage industry yesterday to inspect its operations and fix any problems in an effort to prevent leaks like the one at Southern California Gas Co.'s Aliso Canyon facility that has forced the evacuation of 4,400 families from Los Angeles.

TOP STORIES

2.ECONOMY:

Lone Star collapse: Texas braces for oil-bust fallout

3.CLEAN POWER PLAN:

RGGI gets mixed signals on mingling with other states

4.SECURITY:

Quiet on the cyber front in 2015, but analysts raise utility underreporting

ELECTRICITY

5.NUCLEAR:

Ga. regulator wants another look at Vogtle cost recovery

6.SECURITY:

Former nuclear employee pleads guilty to DOE hacking scheme

7.UTILITIES:

CenterPoint weighs selling pipeline unit Enable

OIL AND GAS

8.OIL:

Decline curve sets up a scenario for rising prices -- report

9.CONGRESS:

Murkowski looks to energy bill to aid Alaska LNG project

10.OIL MARKETS:

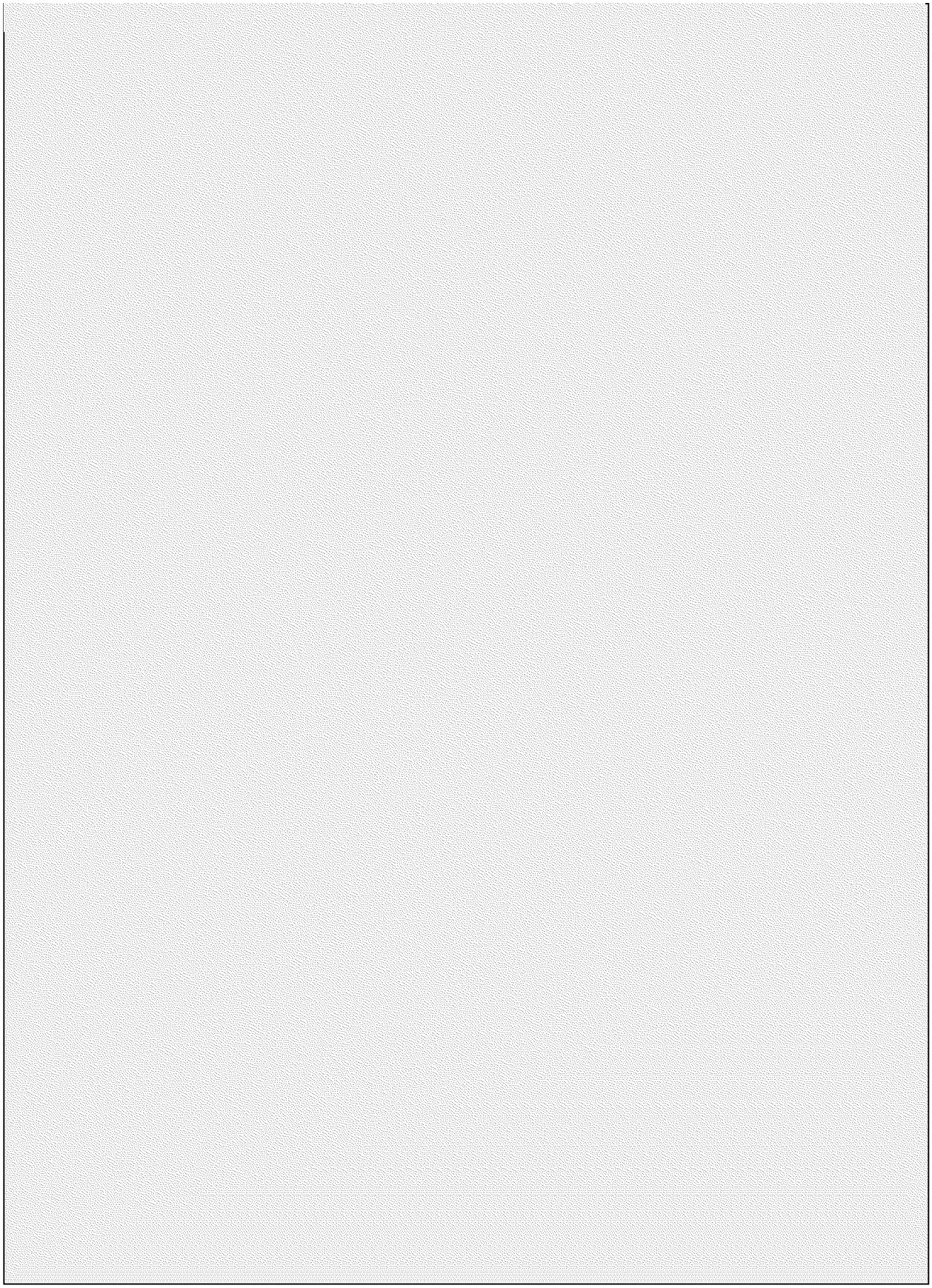
Russia to meet with OPEC about prices

11.PIPELINES:

Exxon to truck oil stranded in Santa Barbara

12.PIPELINES:

Enbridge accuses Minn. PUC of setting illegal requirements



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To: Horton, Garett[Garett.Horton@vw.com]
From: Sohacki, Lynn
Sent: Wed 2/3/2016 4:43:53 PM
Subject: RE: Parameters needed for W117RXX-0405 and W116RXX-0581

Thank you, Garett!

Lynn

From: Horton, Garett [mailto:Garett.Horton@vw.com]
Sent: Wednesday, February 03, 2016 10:11 AM
To: Sohacki, Lynn <sohacki.lynn@epa.gov>
Subject: RE: Parameters needed for W117RXX-0405 and W116RXX-0581

Here you are Lynn.

Regards,

Garett

From: Sohacki, Lynn [mailto:sohacki.lynn@epa.gov]
Sent: Wednesday, February 03, 2016 4:02 PM
To: Horton, Garett <Garett.Horton@vw.com>
Subject: FW: Parameters needed for W117RXX-0405 and W116RXX-0581

Hi, Garett.

Thanks for the documents. The parameter form is filled out for vehicle W116RXX-0160. I still need parameter forms for W117RXX-0405 and

W116RXX-0581.

Thanks,

Lynn

From: Horton, Garett [mailto:Garett.Horton@vw.com]
Sent: Wednesday, February 03, 2016 7:06 AM
To: Sohacki, Lynn <sohacki.lynn@epa.gov>
Subject: RE: Parameters needed for W117RXX-0405 and W116RXX-0581

Good morning Lynn,

Here are the attached parameters and a presentation with other necessary information.

My colleague Brett Smith will be there today for the first vehicle check in and can go through the presentation with you.

If you need anything else let me know.

Thanks,

Garett

From: Sohacki, Lynn [mailto:sohacki.lynn@epa.gov]
Sent: Monday, February 01, 2016 8:57 PM
To: Horton, Garett <Garett.Horton@vw.com>
Subject: Parameters needed for W117RXX-0405 and W116RXX-0581

Hi, Garrett.

The following vehicles will be brought in next week:

W117RXX-0405 (2013 Audi/A6) – VIN# Ex. 6, 0830 Vehicle Pick up on 2/10/16 (Wednesday)

W116RXX-0581 (2013 Audi/A6) – VIN# Ex. 6, 0900 Vehicle Pick up on 2/11/16 (Thursday)

Please fill the attached parameter sheet (including the second tab) and return it to me. When including instructions for disabling traction control, please include a description and location of the icon. Please include any testing protocol needed for testing vehicles with start-stop technology, ie. buckle seatbelts, lock hood, etc.

Thanks,

Lynn Sohacki

EPA, Compliance Division

734-214-4851

To: Ex. 7
From: Snyder, Jim
Sent: Thur 2/4/2016 1:40:24 PM
Subject: FW: Tier 3 fleet averaging

That's what I thought but Tony confirmed it.

From: Fernandez, Antonio
Sent: Thursday, February 04, 2016 7:48 AM
To: Snyder, Jim <Snyder.Jim@epa.gov>
Subject: RE: Tier 3 fleet average.

The "early" Tier 3 program (2015/16) was not a 50 state fleet average program because it was intended to either be a way to earn early "federal" credits (not deficits) or a way to sell all your vehicles as 50 state (without needing to worry about meeting a fleet average federally). In the 2017 model year, LEVIII and Tier 3 are the same fleet average target standards which allows us to begin the 50 state averaging program with no downside.

From: Snyder, Jim
Sent: Wednesday, February 03, 2016 6:03 PM
To: Fernandez, Antonio <fernandez.antonio@epa.gov>
Subject: Tier 3 fleet average.

Tony, I have a question from VW. They saw that for 2017MY, you calculate the Tier 3 Fleet Average based on nationwide sales. But what about for 2016 or 2015? I thought it was only the Federal (non-calif, non-177state) sales but they would like clarification. Is it only the Federal Tier3 sales or combined Tier3 /LEV3 sales in 2016?

Jim Snyder
Light-Duty Vehicle Group
Compliance Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

To: Geanacopoulos, David[David.Geanacopoulos@vw.com]
From: Grundler, Christopher
Sent: Fri 2/5/2016 4:29:59 PM
Subject: Re: DG job change

I did , and was concerned. Reading this , I am relieved. On my way to Berlin.

Chris

Christopher Grundler, Director
Office of Transportation and Air Quality
U.S. Environmental Protection Agency
202.564.1682 (Washington)
734.214.4207 (Ann Arbor)
www.epa.gov/otaq

On Feb 5, 2016, at 5:17 PM, Geanacopoulos, David <David.Geanacopoulos@vw.com> wrote:

> Chris,
>
> You probably saw a little story about my job change. Please see the attached release the Company put out yesterday. I am still "on the case", and also looking forward to my new role and new location.
>
> I hope all is well with you.
>
> Happy Friday…
>
> David
>
> David Geanacopoulos
>
> Volkswagen Group of America, Inc.

2200 Ferdinand Porsche Drive

Herndon, Virginia 20171

703-364-7240

<2016DaviGDavidDdraftreleaseVFinal.docx>

To: Sutton, Tia[sutton.tia@epa.gov]; Belser, Evan[Belser.Evan@epa.gov]
Cc: Haman, Patricia[Haman.Patricia@epa.gov]
From: Levine, Carolyn
Sent: Mon 2/8/2016 4:35:19 PM
Subject: OCIR comments- Oct 8 2015 HEC VW Hearing QFRs
Oct 8 2015 HEC VW Hearing QFRs- EPA responses OCIR Edits.docx

Attached are my/Pat's comments. My comments need Evan/OECA's attention, but I will let Tia or Pat share with appropriate OTAQ folks.

Carolyn Levine

Office of Congressional and Intergovernmental Relations

U.S. EPA

(202) 564-1859

levine.carolyn@epa.gov

To: Horton, Garett[Garett.Horton@vw.com]; Smith, Brett (EEO)[Brett.Smith@vw.com]
Cc: Liebner, Bernd[liebner.bernd@epa.gov]; Gordinier, Terry[Gordinier.Terry@epa.gov]; Mazaitis, Vincent[mazaitis.vincent@epa.gov]
From: Sohacki, Lynn
Sent: Tue 2/9/2016 2:56:35 PM
Subject: RE: Any testing instructions?

Thanks, Garett.

We will discuss this and let you know in which mode that we will test it.

Regards,

Lynn

From: Horton, Garett [mailto:Garett.Horton@vw.com]
Sent: Tuesday, February 09, 2016 9:53 AM
To: Sohacki, Lynn <sohacki.lynn@epa.gov>; Smith, Brett (EEO) <Brett.Smith@vw.com>
Cc: Liebner, Bernd <liebner.bernd@epa.gov>; Gordinier, Terry <Gordinier.Terry@epa.gov>; Mazaitis, Vincent <mazaitis.vincent@epa.gov>
Subject: RE: Any testing instructions?

Hi Lynn,

For certification both configurations were tested.

This is why it is necessary for it to be noted prior to the start which mode EPA will be testing so that we can ensure the proper GHG standards are being applied.

If you have any further questions, let me know.

Thanks,

Garett

From: Sohacki, Lynn [mailto:sohacki.lynn@epa.gov]
Sent: Tuesday, February 09, 2016 3:47 PM
To: Smith, Brett (EEO) <Brett.Smith@vw.com>
Cc: Liebner, Bernd <liebner.bernd@epa.gov>; Gordinier, Terry <Gordinier.Terry@epa.gov>; Mazaitis, Vincent <mazaitis.vincent@epa.gov>; Horton, Garett <Garett.Horton@vw.com>
Subject: RE: Any testing instructions?

HI, Brett.

Can you tell me the mode in which this vehicle was tested for certification?

Thanks,

Lynn

From: Smith, Brett (EEO) [mailto:Brett.Smith@vw.com]
Sent: Monday, February 08, 2016 3:56 PM
To: Sohacki, Lynn <sohacki.lynn@epa.gov>
Cc: Liebner, Bernd <liebner.bernd@epa.gov>; Gordinier, Terry <Gordinier.Terry@epa.gov>; Mazaitis, Vincent <mazaitis.vincent@epa.gov>; Horton, Garett <Garett.Horton@vw.com>
Subject: RE: Any testing instructions?

Hello,

The stop start instructions is on the 5th slide of the PowerPoint presentation.

Please advise if there is anything further you need.

Is it possible I could be there for the beginning of the test?

Thank you

Brett Smith

Regulatory Engineering Coordinator

Engineering & Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

United States of America

Phone: (248) 754-4212

Cell: (248) 421-0235

Fax: (248) 754-4207

E-Mail: Brett.Smith@vw.com

From: Sohacki, Lynn [mailto:sohacki.lynn@epa.gov]
Sent: Monday, February 08, 2016 3:17 PM
To: Smith, Brett (EEO) <Brett.Smith@vw.com>
Cc: Liebner, Bernd <liebner.bernd@epa.gov>; Gordinier, Terry <Gordinier.Terry@epa.gov>; Mazaitis, Vincent <mazaitis.vincent@epa.gov>
Subject: Any testing instructions?

Hi, Brett.

I'm following up on the maintenance that you oversaw last week. I was told that you were going to check on whether VW has any instructions for testing vehicles with stop-start technology. Have you found anything that we should be aware of?

Thanks,

Lynn Sohacki

Compliance Division

Environmental Protection Agency

734-214-4851

734-214-4869 fax

To: Horton, Garett[Garett.Horton@vw.com]; Smith, Brett (EEO)[Brett.Smith@vw.com]
Cc: Liebner, Bernd[liebner.bernd@epa.gov]; Gordinier, Terry[Gordinier.Terry@epa.gov]; Mazaitis, Vincent[mazaitis.vincent@epa.gov]
From: Sohacki, Lynn
Sent: Tue 2/9/2016 8:00:21 PM
Subject: RE: Any testing instructions?

Hi, Garett.

EPA will be testing these vehicles in start-stop mode.

Thanks,

Lynn

From: Horton, Garett [mailto:Garett.Horton@vw.com]
Sent: Tuesday, February 09, 2016 9:53 AM
To: Sohacki, Lynn <sohacki.lynn@epa.gov>; Smith, Brett (EEO) <Brett.Smith@vw.com>
Cc: Liebner, Bernd <liebner.bernd@epa.gov>; Gordinier, Terry <Gordinier.Terry@epa.gov>; Mazaitis, Vincent <mazaitis.vincent@epa.gov>
Subject: RE: Any testing instructions?

Hi Lynn,

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Cc: Liebner, Bernd <liebner.bernd@epa.gov>; Gordinier, Terry <Gordinier.Terry@epa.gov>; Mazaitis, Vincent <mazaitis.vincent@epa.gov>; Horton, Garett <Garett.Horton@vw.com>
Subject: RE: Any testing instructions?

Hello,

The stop start instructions is on the 5th slide of the PowerPoint presentation.

Please advise if there is anything further you need.

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Thank you

Brett Smith

Regulatory Engineering Coordinator

Engineering & Environmental Office

Volkswagen Group of America, Inc.

3800 Hamlin Road

Auburn Hills, MI 48326

United States of America

Phone: (248) 754-4212

Cell: (248) 421-0235

Fax: (248) 754-4207

E-Mail: Brett.Smith@vw.com

From: Sohacki, Lynn [mailto:sohacki.lynn@epa.gov]
Sent: Monday, February 08, 2016 3:17 PM
To: Smith, Brett (EEO) <Brett.Smith@vw.com>
Cc: Liebner, Bernd <liebner.bernd@epa.gov>; Gordinier, Terry <Gordinier.Terry@epa.gov>; Mazaitis, Vincent <mazaitis.vincent@epa.gov>
Subject: Any testing instructions?

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Thanks,

Lynn Sohacki

Compliance Division

Environmental Protection Agency

734-214-4851

734-214-4869 fax

To: richard.thomas@vw.com[richard.thomas@vw.com]
Cc: Snyder, Jim[Snyder.Jim@epa.gov]
From: Good, David
Sent: Tue 2/9/2016 10:24:12 PM
Subject: Re: 2016 FE Guide - Errors in Verify as of 6AM on Feb 9, 2016;
VW_Group_2016-2017 FE Guide-all rel dates-no-sales-2-9-2016.xlsx

Richard,

Re: 2016 FE Guide - Errors in Verify as of 6AM on Feb 9, 2016;

Attached are the data in Verify as of 6AM on Feb 9, 2016. Labels with pea green fill in the first few columns have errors which need to be corrected before I can have the data posted on www.fueleconomy.gov. Errors are listed in column 1 and highlighted in yellow in the field where the error occurred.

The next normal posting of 2016 FE Label data on www.fueleconomy.gov will be on February 1, 2016 (on a monthly schedule where I run the query on the 1st, 9th,15th and 23rd of the month) and send the data to DOE for posting on that day (or a day later).

Please make any needed corrections to Verify when you get a chance.

Thanks

Dave

To: Snyder, Jim[Snyder.Jim@epa.gov]
Cc: Mazaitis, Vincent[mazaitis.vincent@epa.gov]; Haynes, Ben[haynes.ben@epa.gov]
From: Ex. 7
Sent: Wed 2/10/2016 1:29:57 PM
Subject: RE: Audi Confirmatory Test - VID: HAAC-BAF

Hello Jim,

Were you okay with the plan below? We never received a separate verify message confirming the new test date, so I'm curious what the status is.

Please let me know if the below plan is okay for you.

Thanks Jim

Regards,

Ex. 7

VWGoA EEO

Ex. 7

From: Ex. 7
Sent: Wednesday, February 03, 2016 9:15 AM
To: Ex. 7 "Jim Snyder' (Snyder.Jim@epamail.epa.gov)' <Snyder.Jim@epamail.epa.gov>
Cc: Mazaitis, Vincent (mazaitis.vincent@epa.gov) <mazaitis.vincent@epa.gov>; Haynes, Ben (haynes.ben@epa.gov) <haynes.ben@epa.gov>; Ex. 7
Ex. 7
Subject: RE: Audi Confirmatory Test - VID: HAAC-BAF

Hello Jim,

We have finalized a date for the update mentioned below for the 2017 Audi A4 VID: HAAC-BAF. Previous test date was scheduled for Feb 10th as a placeholder, we would now like to schedule the vehicle for delivery to EPA on February 22nd, with a proposed test date of February 24th. Reason behind this rescheduling is that the engineer will not arrive to perform the update until the end of CW07 (end of next week).

Please contact us if you have any questions or concerns with this rescheduling request.

Regards,

Ex. 7

VWGoA EEO

Ex. 7

From: **Ex. 7**
Sent: Friday, January 08, 2016 2:26 PM
To: "Jim Snyder' (Snyder.Jim@epamail.epa.gov)' <Snyder.Jim@epamail.epa.gov>
Cc: Mazaitis, Vincent (mazaitis.vincent@epa.gov) <mazaitis.vincent@epa.gov>; Haynes, Ben (haynes.ben@epa.gov) <haynes.ben@epa.gov>; **Ex. 7**
Ex. 7
Subject: Audi Confirmatory Test - VID: HAAC-BAF

Hello Jim,

Unfortunately we have to delay the planned confirmatory test involving the 2017 Audi A4 VID: HAAC-BAF scheduled for Jan 15th . The delay is due to a pending ECM software update just announced. We expect to be able to test this car the second week of February but will know better as we get closer to that time. In the meantime, please reschedule the test for February 10th

if possible as a placeholder. Please contact me or Ex. 7 if you have any questions or concerns.

Regards,

Ex. 7

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone Ex. 7

E-Mail

To: Ex. 7
Cc: Mazaitis, Vincent[mazaitis.vincent@epa.gov]; Haynes, Ben[haynes.ben@epa.gov]
From: Snyder, Jim
Sent: Wed 2/10/2016 7:22:41 PM
Subject: RE: Audi Confirmatory Test - VID: HAAC-BAF

That should be fine as long as Ben can accommodate it that week.

Jim Snyder
Light-Duty Vehicle Group
Compliance Division
United States Environmental Protection Agency
(734) 214-4946
snyder.jim@epa.gov

From: Ex. 7
Sent: Wednesday, February 10, 2016 8:30 AM
To: Snyder, Jim <Snyder.Jim@epa.gov>
Cc: Mazaitis, Vincent <mazaitis.vincent@epa.gov>; Haynes, Ben <haynes.ben@epa.gov>
Subject: RE: Audi Confirmatory Test - VID: HAAC-BAF

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Ex. 7

VWGoA EEO

Ex. 7

From: Ex. 7
Sent: Wednesday, February 03, 2016 9:15 AM
To: Ex. 7 "Jim Snyder' (Snyder.Jim@epamail.epa.gov)' <Snyder.Jim@epamail.epa.gov>
Cc: Mazaitis, Vincent (mazaitis.vincent@epa.gov) <mazaitis.vincent@epa.gov>; Haynes, Ben (haynes.ben@epa.gov) <haynes.ben@epa.gov>; Ex. 7
Ex. 7
Subject: RE: Audi Confirmatory Test - VID: HAAC-BAF

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Please contact us if you have any questions or concerns with this rescheduling request.

Regards,

Ex. 7

[redacted]

Ex. 7

From: Ex. 7
Sent: Friday, January 08, 2016 2:26 PM
To: "Jim Snyder' (Snyder.Jim@epamail.epa.gov)' <Snyder.Jim@epamail.epa.gov>
Cc: Mazaitis, Vincent (mazaitis.vincent@epa.gov) <mazaitis.vincent@epa.gov>; Haynes, Ben (haynes.ben@epa.gov) <haynes.ben@epa.gov>; Ex. 7
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Regards,

Ex. 7

Engineering and Environmental Office

Volkswagen Group of America, Inc.

Phone Ex. 7

E-Mai

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Impact of the Volkswagen emissions control defeat device on US public health

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OPEN ACCESS

RECEIVED
2 October 2015

REVISED
12 October 2015

ACCEPTED FOR PUBLICATION
13 October 2015

PUBLISHED
29 October 2015

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LETTER

Impact of the Volkswagen emissions control defeat device on US public health

Steven R H Barrett[1], Raymond L Speth[1], Sebastian D Eastham[2], Irene C Dedoussi[1], Akshay Ashok[1], Robert Malina[1] and David W Keith[2]

[1] Massachusetts Institute of Technology, Cambridge MA 02139, USA
[2] Harvard University, Cambridge MA 02138, USA

E-mail: sbarrett@mit.edu

Keywords: light duty vehicles, emissions control, defeat devices, air quality, public health

Supplementary material for this article is available online

Abstract

The US Environmental Protection Agency (EPA) has alleged that Volkswagen Group of America (VW) violated the Clean Air Act (CAA) by developing and installing emissions control system 'defeat devices' (software) in model year 2009–2015 vehicles with 2.0 litre diesel engines. VW has admitted the inclusion of defeat devices. On-road emissions testing suggests that in-use NO_x emissions for these vehicles are a factor of 10 to 40 above the EPA standard. In this paper we quantify the human health impacts and associated costs of the excess emissions. We propagate uncertainties throughout the analysis. A distribution function for excess emissions is estimated based on available in-use NO_x emissions measurements. We then use vehicle sales data and the STEP vehicle fleet model to estimate vehicle distance traveled per year for the fleet. The excess NO_x emissions are allocated on a 50 km grid using an EPA estimate of the light duty diesel vehicle NO_x emissions distribution. We apply a GEOS-Chem adjoint-based rapid air pollution exposure model to produce estimates of particulate matter and ozone exposure due to the spatially resolved excess NO_x emissions. A set of concentration-response functions is applied to estimate mortality and morbidity outcomes. Integrated over the sales period (2008–2015) we estimate that the excess emissions will cause 59 (95% CI: 10 to 150) early deaths in the US. When monetizing premature mortality using EPA-recommended data, we find a social cost of ~$450m over the sales period. For the current fleet, we estimate that a return to compliance for all affected vehicles by the end of 2016 will avert ~130 early deaths and avoid ~$840m in social costs compared to a counterfactual case without recall.

1. Introduction

Outdoor air pollution adversely affects human health (US EPA 2011, WHO 2006). The leading causes of outdoor air pollution-related premature mortality and morbidity outcomes are exposure to fine particulate matter ($PM_{2.5}$) (Dockery et al 1993, Pope et al 2002, WHO 2006) and ozone (Bell et al 2004, Jerrett et al 2009, WHO 2008). The US Environmental Protection Agency (EPA) estimated that in 2010 there were ~160 000 premature deaths in the US due to $PM_{2.5}$ exposure and ~4300 deaths related to ozone exposure (US EPA 2011). In the case of road transportation in the US, Caiazzo et al (2013) estimated that the sector's emissions caused 52 800 early deaths in 2005 (90% confidence interval (CI): 23 600 to 95 300) due to increased $PM_{2.5}$ exposure and 5250 early deaths (90% CI: −850 to 11 100) due to increased ozone exposure. An estimate by Dedoussi and Barrett (2014) using identical emissions and concentration-risk functions, but a different atmospheric chemistry-transport modeling approach, is 42% higher for $PM_{2.5}$-related early deaths. Fann et al (2013) find 16% lower total deaths than Caiazzo et al (2013) due to exposure to inorganic $PM_{2.5}$ for approximately comparable emissions. This variability across results from different health impact assessment approaches is indicative of the scientific uncertainty in exposure estimates

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associated with modeling atmospheric processes, in addition to uncertainty in concentration-response functions that relate exposure to health outcomes, and uncertainty in the quantity of emissions as well as their spatial and temporal distribution and chemical profile. Broadly the central estimates of early deaths due to emissions applying different approaches vary by a factor of two.

The US Clean Air Act (CAA) regulates atmospheric emissions from stationary and mobile sources for the purpose of protecting human health and the environment. The CAA and its implementing regulations include the setting of standards for motor vehicle NO_x (oxides of nitrogen, i.e. $NO + NO_2$) and other emissions (42 U.S.C. §§ 7401–7671q). Over time, the EPA has set increasingly stringent emissions regulations, including for light duty vehicle NO_x emissions (US EPA 2012). The EPA administers a program to ensure that vehicles sold in the US comply with the relevant emissions standards and issues certificates of conformity for the introduction of new vehicles. Emissions standards are set on the basis of particular drive cycles, against which new models are tested to demonstrate compliance. Regulations specifically prohibit 'defeat devices', which are auxiliary emissions control devices that '[reduce] the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use' (40 C.F.R. §86.1803-01) with certain exceptions. Defeat devices are defined to include software in the electronic control module (ECM). Violations related to both defeat devices and excess emissions can result in civil penalties (CAA § 205(a), 42 U.S.C. §7524(a), 40 C.F.R. §19.4), such as the case of excess greenhouse gas emissions from Hyundai and Kia light-duty vehicles (US EPA 2014b) and faulty emission control devices on Mercedes-Benz vehicles (US EPA 2006).

Diesel vehicles are a small but growing part of the US light duty vehicle fleet, with Volkswagen Group of America (VW) being one of the leading manufacturers, accounting for approximately 20% of new light duty diesel vehicle sales, and 70% of new diesel passenger car sales in 2014 (VW of America 2015). In 2015 VW admitted the use of defeat devices in certain 2009–2015 model year 2.0 litre light duty diesel vehicles (US EPA 2015a). This followed work by the West Virginia University (WVU) Center for Alternative Fuels, Engines & Emissions commissioned by the International Council on Clean Transportation, in which significantly higher in-use emissions were found for a 2012 Jetta and a 2013 Passat relative to emissions test values (Thompson et al 2014a). After a voluntary recall in December 2014 failed to resolve the excess emissions, and when EPA and the California Air Resources Board (CARB) would not approve VW 2016 model year diesel vehicles, VW admitted it had installed a software-based defeat device which detected if the vehicle was undergoing emissions testing and modified operation of the emission control system.

On 18 September 2015 the EPA, in coordination with CARB, issued a notice of violation to VW in which EPA alleged violations of the CAA and its implementing regulations. Specifically, EPA alleged that VW developed and installed emissions control system defeat devices in model year 2009–2015 2.0 litre diesel light duty vehicles, which resulted in real world NO_x emissions that are a factor of 10 to 40 above EPA the compliant levels. Possible penalties under the CAA include up to $37 500 for each noncompliant vehicle and $3750 per violation related to defeat devices (US EPA 2015a, ARB 2015), with a possible total penalty of approximately $20bn based on 482 000 affected vehicles sold. Initial estimates in the press of the impact already incurred on public health range from 16 to 106 premature mortalities (NYT 2015, VOX 2015, AP 2015), but there is yet to be a peer-reviewed study which addresses this question.

In this paper we assess the public health impacts of the excess emissions from VW 2.0 litre light duty vehicles in the US for the period 2008–2015. (Model year 2009 vehicles were sold from 2008.) Both mortality and morbidity outcomes associated with exposure to $PM_{2.5}$ and ozone are estimated. We also estimate the benefits of a return to compliance with the Clean Air Act and its implementing regulations for the existing in-use fleet. We assume the return to compliance occurs at a constant rate throughout 2016.

Beyond the specific case of the VW excess emissions, the methods used here demonstrate the growing ability to make spatially resolved probabilistic estimates of the health impacts of small changes in emissions using modern modeling tools, particularly linearized adjoints of best-in-class chemistry-transport models. The ability to make such estimates in near-real time may enable new approaches to the efficient and effective management of air pollution.

2. Methods

We conduct the analysis in a probabilistic framework given the significant uncertainties in estimating early deaths and associated cost. Here we describe our approach to uncertainty modeling, emissions estimation, annual average $PM_{2.5}$ and one-hour daily maximum ozone exposure estimation, mortality and morbidity outcomes estimation, and finally valuation of mortality impacts.

We first compute health impacts and costs from emissions in excess of VW reported values (US EPA 2015b) from 2008–2015. We then compute excess emissions, health impacts and costs if all vehicles are brought into compliance with EPA regulation by December 2016, starting in January 2016, and assuming a vehicle recall at a constant rate throughout

VW FOIA, EPA 06/20/2017 2017-FFP_038378

the year. This is representative of the VW plan at the time of writing (WSJ 2015). The benefit of the recall in terms of avoided health impacts and costs is calculated by subtracting the recall results from the counterfactual results that would occur if the vehicles affected remain in the US vehicle fleet until their retirement without being brought into EPA compliance.

2.1. Uncertainty

Uncertainty in input variables such as the total underreported NO_x is propagated throughout the calculation using Monte Carlo simulation. Ten thousand independent draws of each variable are performed, resulting in ten thousand independent estimates of the total mortality and morbidity impacts. The same draws are used to estimate the impacts in each year and under each scenario. Where not explicitly stated otherwise, reported results correspond to the median value of the the output distribution, i.e. there is equal probability that our central estimate is low or high. When monetizing mortality impacts, the economic value of statistical life is treated as an additional uncertain parameter with ten draws (i.e. 100 000 draws in total). Other sources of uncertainty, such as the shapes of exposure-response functions, are explored in sensitivity analyses which are discussed in the supplementary material.

We base our study on data from 2005 to 2015, using the most recent available data and correcting to the study period (from 2008) where necessary and possible. For example, gridded population data is for 2006, which is scaled for each year using changes in total US population. This introduces uncertainty in the population totals (which are forecasts from 2011 onwards), and also changes in the spatial distribution of population over time (which are not accounted for). Data sources and uncertainty associated with the different parts of our analysis are detailed in the following subsections. We further discuss sources of unquantified uncertainty in section 4.2, and where possible note the direction of the bias that may be introduced.

2.2. Vehicle fleet and activity

Total activity for the affected vehicles, expressed as vehicle-kilometers traveled (VKT), is determined using annual sales data for the affected vehicles and the Stochastic Transport Emissions Policy (STEP) light duty vehicle fleet model (Bastani et al 2012). The model uses assumed values for the average annual growth rate in kilometers traveled per vehicle and the decay rate with vehicle age. A logistic function is used to determine the vehicle retirement rate. The model uses triangular distributions to account for uncertainty in growth and decay rates and the median vehicle age at retirement. Parameters for each distribution are given in the supplementary material. Annual sales figures for affected VW vehicles between 2008 and August 2015 are obtained from WardsAuto Group (2015). These sales figures are scaled to match the total number of affected vehicles, 482 000, reported by the EPA which also includes affected Audi vehicles (US EPA, 2015c).

2.3. Excess emissions

The measurements of Thompson et al (2014a) are used to calculate NO_x emissions factors for affected vehicles. Thompson et al (2014a) tested two affected vehicles, a 2012 Jetta (vehicle A) and a 2013 Passat (vehicle B), on several drive cycles characteristic of highway and urban driving. Each drive cycle was driven one or two times with each vehicle. We use the individual drive cycle NO_x emissions factors for all urban drive cycles using either vehicle (9 samples) and compute the mean and standard deviation of a truncated normal distribution for the urban driving emissions factor. We do the same with the highway drive cycle (4 samples) for the highway driving emissions factor. The distribution parameters for the baseline emissions factor are computed from the weighted FTP-75 chassis dynamometer tests for each vehicle (Thompson et al 2014a).

Excess emissions are allocated to 10 road types in the US consisting of rural and urban interstate, arterial, collector and local roads. Emissions based on highway test data are allocated to rural interstate roads, while those calculated from city drive cycles are allocated to the other road types. This is done since the urban drive cycles included portions of highway driving. We use spatial surrogates for light duty diesel vehicle NO_x emissions from the 2005 National Emissions Inventory (US EPA 2008) to map roads to model grid cells.

Excess emissions from 2008 through 2015 are computed as the difference between the real driving emissions and the FTP-75 emissions, representing the difference between actual and expected emissions. Excess emissions from 2016 onward are calculated as the difference between the estimated real driving emissions and the EPA Tier 2 Bin 5 standard of 0.043 g km^{-1} (40 C.F.R. §86.1811–17), representing the difference in NO_x emissions that could be expected if these vehicles were brought into regulatory compliance.

2.4. Air quality modeling

Exposure to annual $PM_{2.5}$ and one-hour daily maximum ozone is estimated using updated versions of air quality sensitivity matrices developed as an air pollution policy assessment tool by Dedoussi and Barrett (2014). Sensitivity matrices derived from the GEOS-Chem adjoint have previously been used to assess the health impacts of emissions perturbations by Koo et al (2013) and Lee et al (2015). The sensitivity matrices map an arbitrary three-dimensional time-varying distribution of emissions to total US population exposure to inorganic $PM_{2.5}$ (on an annual average

VW FOIA, EPA 06/20/2017 2017-FFP_038379

basis) and ozone (based on a one-hour daily maximum value during the ozone season). The sensitivity matrices were computed from the adjoint of the GEOS-Chem chemistry-transport model applied at a ~50 km resolution to a domain encompassing the contiguous United States (CONUS). Further discussion of the air quality modeling approach relative to alternatives is provided in the supplementary material.

The GEOS-Chem adjoint model was developed by Henze et al (2007) and is based on the GEOS-Chem global tropospheric chemistry-transport model (Bey et al 2001). It calculates the sensitivities of quantities of interest (e.g. population exposure to $PM_{2.5}$ and ozone) with respect to various model parameters (e.g. emissions). GEOS-Chem performs transport, gas- and aerosol-phase chemistry and wet and dry deposition calculations. In the GEOS-Chem version that is applied in the present work the KPP chemical solver (Damian et al 2002) and the RPMARES aerosol equilibrium model (an implementation of the MARS-A scheme of Binkowski and Roselle (2003)) are used. GEOS5 meteorological data from the Global Modeling and Assimilation Office (GMAO) at the NASA Goddard Space Flight Centre for 2006 are used. We note that 2006 was a climatologically warm year in the US, with the annual average temperature 0.6 °C warmer than the 1995–2015 mean (NOAA 2015). The EPA National Emissions Inventory for 2005 is used for anthropogenic emissions in the US. We note that emissions have declined since, which will introduce an unquantified uncertainty to the size of sensitivities. In particular, decreasing SO_2 emissions will likely lead to a greater impact of NO_x emissions on ammonium nitrate particulate matter formation due to increased availability of free ammonia (Woody et al 2011). Decreasing NO_x emissions will likely lead to greater ozone sensitivity to NO_x emissions, as net ozone production is increased as a result of reduced titration of ozone at low NO_x concentrations (Seinfeld and Pandis 2006).

The GEOS-Chem adjoint simulations upon which the air quality sensitivity matrices are based are run for a 15-month period. The first 3 months of the (backward) simulation are used as the adjoint spin-up time, during which the model is run, but the outputs are not included in the analysis, to ensure that any initial conditions do not contribute significantly to the annual air quality impacts. We calculate the sensitivity of two objective functions (relevant to health impacts) with respect to NO_x emissions. The first objective function is defined as the annually averaged US population exposure to $PM_{2.5}$, and the second as the one-hour daily maximum US population exposure to ozone during the ozone season (May to September). We calculate exposure to one-hour daily maximum ozone given that this is the exposure metric linked to increased risk of premature mortality in the epidemiological work used in this study (Jerrett et al 2009). Morbidity outcomes, which are associated with the regulatory metric of eight-hour maxima, are calculated by assuming a constant correction factor between the one-hour and eight-hour maximum (Thurston and Ito 2001). The implications of this correction factor are discussed in the supplementary material. The population exposure impacts are quantified by performing an inner (Frobenius) product of the sensitivity matrix with the spatially resolved VW excess NO_x emissions map, obtained as described in section 2.3. This operation gives us the aggregate US air quality impacts change attributable to these emissions.

We estimate uncertainty in the $PM_{2.5}$ exposure calculations arising from the baseline atmospheric model (GEOS-Chem) as well as the uncertainty in applying the adjoint-based approach for capturing marginal impacts. Based on a comparison with annually averaged observational Federal Reference Method (FRM) $PM_{2.5}$ data from the EPA's Air Quality System (AQS) database from ~1000 locations in the CONUS, the AQS $PM_{2.5}$ values are on average ~40% higher than those predicted by GEOS-Chem (corrected to include particle bound water for comparison purposes using the Aerosol Inorganic Model by Clegg et al 1998). When comparing different atmospheric model approaches for capturing marginal impacts (Caiazzo et al (2013), Fann et al (2013) and Dedoussi and Barrett (2014) for the road transportation sector, correcting for the absence of secondary organic aerosols, and accounting for the different definitions of the mobile/ road transportation sectors amongst studies), we find that these can be up to ~40% lower than the adjoint-based approach. Given the biases from these modeling and measurement-based comparisons, we apply a normally distributed multiplicative factor to the $PM_{2.5}$ sensitivity matrix calculated values with mean 1 and standard deviation 0.4. The bias of grid resolution is not captured, as it has been shown that CONUS $PM_{2.5}$ health impacts are largely unaffected by grid resolution in fine resolutions (Thompson et al 2014b, Arunachalam et al 2011). We note that model uncertainty may not be fully captured given the interacting issues of resolution, emissions, meteorology, and chemical processes, as well as the limited coverage of monitors, mismatch in scales, and potential for canceling errors in the model.

Uncertainty in the ozone estimates are estimated by comparing modeled and measured one-hour daily maximum ozone concentrations at monitoring locations across the US. Observational data are obtained for ~1200 sites from the EPA's AQS database. The normalized mean bias (NMB) from all locations is distributed with an average NMB of 25.3% and NMB standard deviation of 17.9%. We draw from this assuming a normal distribution and multiply the ozone impacts with its reciprocal as a corrective factor. This follows the uncertainty quantification done in Caiazzo et al (2013).

VW FOIA, EPA 06/20/2017 2017-FFP_038380

2.5. Health impacts

For a given estimate of total unreported NO_x emissions, the adjoint-based model described in section 2.4 is applied to determine the increase in total population exposure to both annual $PM_{2.5}$ and one-hour daily maximum ozone. Epidemiological concentration-response functions (CRFs) are applied to calculate the increase in premature mortality and morbidity (i.e. non-fatal) outcomes. Premature mortalities are calculated by assuming a log-linear CRF. Function parameters are derived from an American Cancer Society study (Krewski et al 2009, Jerrett et al 2009). Krewski et al (2009) correlated changes in annual average daily $PM_{2.5}$ exposure with increased premature mortality due to cardiopulmonary disease and lung cancer. Jerrett et al (2009) correlated increases in the daily one-hour maximum ozone exposure with premature mortality due to chronic obstructive pulmonary disease (COPD) and exacerbation of asthma. Alternative CRF shapes and parameters including the integrated exposure-response (IER) function applied in the 2010 Global Burden of Disease study (Burnett et al 2014, Lim et al 2012) are evaluated to determine the sensitivity of the result to the choice of CRF (presented in the supplementary material).

The rate of increase of relative risk with exposure is treated as two independent, uncertain variables for one-hour daily maximum ozone and annual average $PM_{2.5}$. We assume a triangular distribution with mode and 95% confidence interval taken from the epidemiological study results. Background levels of $PM_{2.5}$ and ozone are extracted from a previous forward ~50 km resolution GEOS-Chem simulation of US air quality, with a population-weighted average background of 8.18 $\mu g m^{-3}$ for $PM_{2.5}$ and 39.7 ppbv for ozone in 2006. The background distribution is taken from archived GEOS-Chem simulation data. Since the health impact functions are all assumed to be linear or log-linear with no lower threshold, increases in background exposure only have a significant effect at background levels higher than those in the US. Highly non-linear CRFs such as the integrated exposure response functions discussed in the supplementary material are more sensitive to background concentrations.

Morbidity impacts are estimated using linear CRFs from the 2005 update to the methodology for the European externalities of energy (ExternE) project (Bickel and Friedrich 2005). Morbidity outcomes include the increase in bronchodilator usage days, lower respiratory symptom days, minor restricted activity days (including work loss days), hospital admissions, and new cases of chronic bronchitis. Alternative response functions based on data from the EPA are also discussed in the supplementary material.

The gridded population distribution for the US applied in the GEOS-Chem adjoint-based model is taken from the Global Rural Urban Mapping Project (GRUMP) (Balk et al 2006) for 2006. This distribution is embedded in the adjoint sensitivity matrix, and the distribution is therefore assumed to be constant between target years. Estimated exposure is normalized by population to yield the population-weighted average change. Total population and population fractions by age are estimated for each year using data from UN forecasts (2013). Baseline mortality rates per 1000 people for each disease of interest are taken from the World Health Organization Global Burden of Disease report for 2012 (WHO 2014) and are assumed to remain constant.

2.6. Monetization

Increase in premature mortality is monetized using estimates of the monetary value of changes in mortality risk, expressed as the value of statistical life (VSL). Following EPA recommendations (US EPA 2014), VSL is treated as an uncertain variable. In the supplementary material, we also present results if only the mean VSL value is used for monetization. We estimate a VSL distribution for 2015 by adjusting the original study values from previous years used by EPA in terms of inflation and real income growth. Inflation is considered using the US Bureau of Economic Analysis' implicit price deflator for gross domestic product (GDP) (US Bureau of Economic Analysis 2015). Real income growth is considered through changes in the full-time employed median usual weekly earnings (US Bureau of Labor Statistics 2015) and assuming a VSL income elasticity of 0.4, consistent with the recommended central value in EPA's Benefits Mapping and Analysis Program-Community Edition (BenMAP-CE) model (RTI International 2015). A Weibull distribution is fitted to the augmented VSL data, yielding a shape factor of 1.5 and a scale factor of 8.9 for 2015. The resulting mean VSL is $8.1 million (2015 dollars). Alternative approaches for adjusting the EPA-recommended distribution of VSL values to 2015 include using the Consumer Price Index instead of the GDP deflator and using the high (1.0) and low (0.08) values of the EPA BenMap-CE VSL income elasticity recommendations. These alternative approaches yield mean 2015 VSLs within −1% to +4% of the mean value used in this study. The median VSL results of the alternative approaches are presented in the supplementary material.

For past years, the original VSL estimates considered by EPA are augmented by adjusting for income growth and expressing them in 2015 US dollars. For estimating the benefits associated with a return to compliance for the current fleet with the Clean Air Act after 2015, future year VSL distributions need to be estimated. We adjust 2015 VSL values by accounting for long-term annual real GDP growth in the US out to 2040 at a compound annual growth rate of 1.7% (OECD 2014) and assuming a VSL income elasticity of 0.4 as recommended in EPA BenMap-CE. The resulting VSL distributions for 2008–2040 are shown in the supplementary material.

VW FOIA, EPA 06/20/2017 2017-FFP_038381

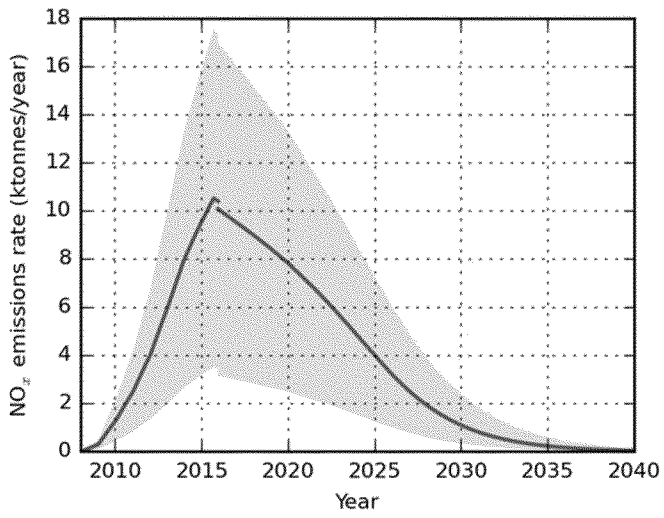


Figure 1. Annual excess VW light duty diesel vehicle NO_x emissions in kilotonnes (million kg). Results from 2008 through 2015 (blue) are estimates of actual excess emissions. Results from 2016 onward (red) are forecast based on the existing in-use vehicle fleet assuming no new sales of non-compliant vehicles from September 2015 and no retrofitting (used to calculate the benefit of a return to compliance). The shaded region indicates the 95% confidence interval. The discontinuity is due to the difference in the baseline for past (based on FTP-75 drive cycle measurements) and future (based on a return to regulatory limit) emissions.

Morbidity outcomes are not monetized. However, we expect mortality to capture >90% of monetized impacts (US EPA 2011). Social costs for each year are calculated by multiplying annual incidents of premature mortality with the VSL for the corresponding year, assuming the mortality lag structure recommended by the EPA for air-quality impacts. Total social costs for 2008 to 2015 from increased premature mortality are expressed in 2015 USD dollars using a social rate of time preference (discount rate) of 3% p.a. (US EPA 2014). Total social costs from additional increased premature mortality that occurs in future years if vehicles are not brought into compliance with EPA regulations are expressed in 2015 USD dollars using the same discount rate. The results for different discount rate choices are presented in the supplementary material.

3. Results

3.1. Emissions

Based on the drive cycle tests of Thompson et al (2014a), we estimate the NO_x emissions factors for urban driving for the affected vehicles to be 0.97 g km^{-1} (95% CI: 0.31 to 1.62) and for highway driving to be 0.50 g km^{-1} (95% CI: 0.06 to 0.94). The emissions factor based on the FTP-75 drive cycle is estimated to be 0.019 g km^{-1} (95% CI: 0.0085 to 0.0294). Based on the 2005 emissions inventory, we estimate 8.6% of VKT to be driven on rural interstates, for which we use the highway emissions factor, while the urban emissions factor is used for all other VKT. This gives a weighted average NO_x emission factor for affected vehicles across all roads of 0.93 g km^{-1} (95% CI: 0.33 to 1.53).

The excess NO_x emissions over time from the fleet of affected vehicles is shown in Figure 1. The total VKT by affected vehicles between 2008 and 2015 is estimated to be 40.5 billion km (95% CI: 39.4 to 41.6), corresponding to total excess NO_x emissions (above the emissions estimated based on the FTP-75 drive cycle) of 36.7 million kg (95% CI: 12.3 to 61.2). The total VKT expected for these vehicles from 2016 onward is estimated to be 93.4 billion km (95% CI: 80.2 to 109.9), corresponding to total excess NO_x emissions of 82.0 million kg (95% CI: 25.8 to 145.6). If these vehicles were brought into compliance with EPA regulations by the end of 2016 assuming a constant rate of repairs beginning in January 2016, we would expect the avoided VKT and NO_x emissions to be 87.3 billion km (95% CI: 74.4 to 103.6) and 76.6 million kg (95% CI: 24.1 to 136.6), respectively. Figure 2 shows the spatial distribution of excess VW light duty vehicle diesel NO_x emissions in the US, aggregated over 2008–2015, under the assumption that the excess NO_x emissions from the affected VW vehicles have the same spatial distribution as total NO_x emissions from light duty diesel vehicles.

3.2. Exposure and health impacts

The exposure and health impacts results (including the 95% CI) are shown in table 1, both integrated over the time period 2008–2015 and the forecast impacts taking a reference case of no recall. The total US population exposure of people over 30 years old to annual $PM_{2.5}$ and one-hour daily maximum ozone due to the VW excess NO_x emissions during the years 2008–2015 is calculated to be 0.78 million people-μg/m^3 (95% CI: 0.075–2.0) and 2.6 million people-ppbv (95% CI: 0.85–4.7), respectively. This results in a total of 59 (95% CI: 9.7–150) premature deaths, 87% of

VW FOIA, EPA 06/20/2017 2017-FFP_038382

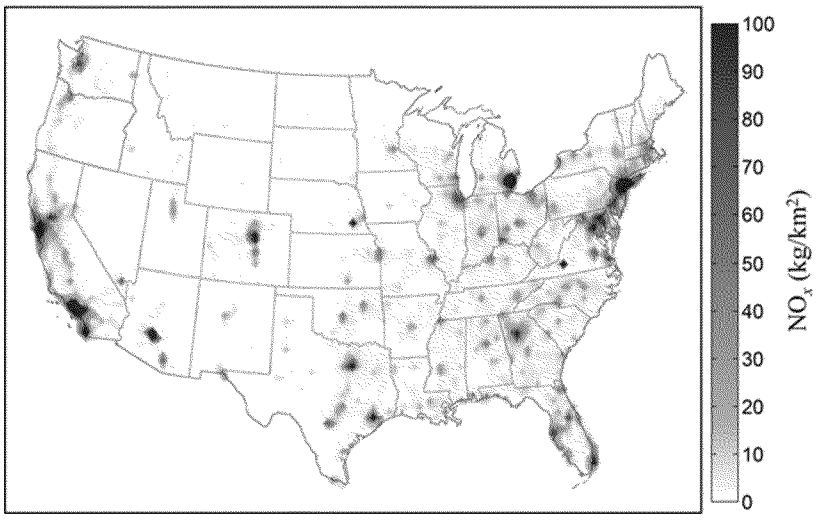


Figure 2. Distribution of estimated actual excess VW light duty diesel vehicle NO_x emissions summed over 2008 through 2015 (kg km^{-2}). The median value of emissions is used for each year. Emission density peaks at 446 kg km^{-2}.

Table 1. Estimated actual and forecast exposure and mortality impacts of excess VW light duty diesel vehicle NO_x emissions. Note that the median totals are not exactly equal to the sum of median values. Bracketed numbers are 95% confidence interval. Results after 2016 are forecast based on the existing in-use vehicle fleet assuming no new sales of non-compliant vehicles and no retrofitting (used to calculate the benefit of a return to compliance after 2015). Monetized values are adjusted to 2015 dollars. Values shown are rounded to 2 significant figures.

	Outcome	$PM_{2.5}$	Ozone	Total
2008-2015 estimated actual impacts	Exposure[a]	0.78 (0.075–2.0)	2.6 (0.85–4.7)	–
	Early deaths	51 (4.6–130)	7.7 (1.4–20)	59 (9.7–150)
	Mortality cost (million USD)	380 (34–1100)	62 (11–190)	450 (72–1200)
Forecast impacts from 2016 assuming no recall	Exposure[a]	1.9 (0.17–4.9)	6.3 (2.0–12)	–
	Early deaths	120 (10–330)	19 (3.3–49)	140 (23–370)
	Mortality cost (million USD)	770 (66–2200)	130 (22–370)	910 (140–2500)
Benefit of a recall	Avoided exposure[a]	1.8 (0.13–4.6)	5.9 (1.6–11)	–
	Avoided deaths	110 (8.5–320)	17 (2.8–47)	130 (18–350)
	Avoided cost (million USD)	710 (48–2100)	120 (18–350)	840 (110–2300)

[a] Exposure is in millions of people over 30, in μg m^{-3} or ppbv for $PM_{2.5}$ or ozone, respectively.

which are attributable to the $PM_{2.5}$ exposure and 13% to ozone exposure. Extended results are shown in the supplementary material.

In addition to increased premature mortalities, this increase in the population exposure to $PM_{2.5}$ and ozone is estimated to result in 31 (95% CI: −38 to 170) cases of chronic bronchitis and 34 (95% CI: −1.9 to 100) hospital admissions. The hospital admissions include respiratory and cardiac hospital admissions. We calculate that there will be ~120 000 minor restricted activity days (including work loss days), ~210 000 lower respiratory symptom days, and ~33 000 additional bronchodilator usage days.

Assuming no new sales of the affected models from September 2015 and that no retrofitting of the affected VW vehicles occurs, we forecast the corresponding additional mortality and morbidity impacts until these vehicles are eventually disposed of. An additional 140 (95% CI: 23 to 370) premature deaths are forecast due to these NO_x emissions in excess of EPA compliant levels. In terms of the morbidity impacts we forecast 86 (95% CI: −91 to 460) additional chronic bronchitis cases and 87 (95% CI: −10 to 270) hospital admissions. Future minor restricted activity days are estimated to be increased by ~270 000, lower respiratory symptom days by ~490 000 and increased bronchodilator usage days by ~77 000. However, we find that a full recall, beginning in January 2016 and ending in December 2016, would avoid 130 (95% CI: 18–350) of the 140 attributable future mortalities.

3.3. Social costs

Monetized mortality costs from 2008 until the end of 2015 due to the excess VW NO_x emissions are estimated at $450m (95% CI: $72m to $1.2 bn), while future costs if there is no recall (but no further sales from September 2015) are forecast to be $910m (95% CI: $140m to $2.5bn). The total cost that will occur without recall is therefore expected to be ~$1.4bn in 2015 USD, or ~$2800 per vehicle. However, assuming that vehicles are recalled at a constant rate from the start of 2016 and all devices replaced by the end of 2016, the total cost of future mortality impacts could

VW FOIA, EPA 06/20/2017 2017-FFP_038383

be reduced by 93% to $61m. This is equal to 62% of the total projected costs from 2008 to 2040.

4. Conclusions and discussion

4.1. Results and context

We estimate the public health impacts and associated costs of the alleged CAA violations by VW due to defeat devices being present in model year 2009–2015 light duty diesel vehicles with 2.0 litre engines. An estimated ~36.7 million kg of excess NO_x emissions occur from 2008 to 2015. Our computed excess NO_x emissions in 2015 are equivalent to ~1% of the total light duty vehicle emissions.

We estimate that ~59 early deaths will be caused by 2008–2015 excess emissions with a monetized cost of ~$450m. (Some of the estimated deaths caused by historical emissions have not yet occurred due to the cessation lag structure assumed.) Morbidity impacts include ~31 cases of chronic bronchitis, ~34 hospital admissions, ~120 000 minor restricted activity days, ~210 000 lower respiratory symptom days, and ~33 000 days of increased bronchodilator usage.

We compare our results to non-peer reviewed estimates that have appeared in the press in the month following EPA's Notice of Violation (NYT 2015, Vox 2015, AP 2015). These estimates consider excess NO_x emissions that have occurred from 2008 to 2015 only. Results from these studies, which consider only $PM_{2.5}$ exposure, range from 16 to 106 additional cases of premature mortality due to excess VW vehicle NO_x emissions, compared to our median result of 51, and 95% confidence interval of 4.6 to 130 cases for $PM_{2.5}$ due to NO_x only. For 2015 specifically, AP (2015) estimated 5 to 15 additional cases of premature mortality due to $PM_{2.5}$ compared to our median estimate of 14 cases in 2015.

The air pollution mortalities may also be compared to fatal accidents, another major adverse consequence of vehicle use. We estimate the vehicles of concern will have driven 40.5 billion km from 2008 to the end of 2015, which implies approximately 280 accident fatalities over this time period for a fleet of the size of the VW light duty diesel vehicles considered here when using average US fatality rates (ITF 2014, NHTSA 2015). Per kilometer driven, the air pollution death rate from the excess NO_x emissions is therefore ~20% of the accident fatality rate for an average US passenger car.

If no recall is made we estimate that the existing affected vehicles will cause ~140 early deaths from 2016, with a monetized cost of ~$910m. However, if the vehicles are recalled and brought into compliance by the end of 2016 then 93% of these deaths and 92% of the costs can be avoided. Including the early deaths that have occurred or are already bound to occur, this means that bringing the vehicles into compliance in 2016 can avert 66% of total early deaths and 62% of monetized costs.

4.2. Limitations and uncertainties

We now note unquantified uncertainties in this study, some of which it may be possible to quantify with further research. The fleet model uses US average car purchasing, use, and disposal trends. These may vary for the specific VW application. Any effect of the December 2014 voluntary recall has not been factored in to damage estimates for 2015 due to lack of data. The air quality sensitivity matrices are based on 2005–2006 data, but may have changed over time since then. Toxicity of different PM species is assumed equal, consistent with EPA practice. However, as NO_x emissions impact ammonium nitrate most strongly, this would amplify the impact of any differential toxicity relative to the basket of urban PM for which CRFs are derived. Secondary organic aerosol impacts have not been included in the health impact assessment. The time after exposure changes when changes in risk occurs is an uncertainty, where we have applied a cessation lag structure to $PM_{2.5}$ mortality impacts consistent with EPA practice. This lag structure reduces valuations by <10%, suggesting it is not a major contributor to uncertainty. The basis upon which to estimate excess emissions is limited to the number of available measurements. In terms of monetizing changes in premature mortality, social cost uncertainty exists beyond the EPA-recommended uncertainty quantification applied in this study. Additional uncertainty may stem from unknown heterogeneity in the valuation of mortality risk changes by age cohort and health status, and from an unknown degree of bias from benefits transfer.

Finally, we note that there may have been environmental benefits of the defeat device that we have not computed. For example, the reduced use of diesel exhaust fluid in selective catalytic reduction may potentially have also reduced ammonia slip, and therefore associated $PM_{2.5}$ exposure and health impacts. In particular, Dedoussi and Barrett (2014) find that total $PM_{2.5}$ exposure attributable to road transportation is caused approximately equally by NO_x and NH_3 emissions.

4.3. Policy implications

In the 18 September 2015 EPA letter to VW, EPA alleged that VW violated section 203 (a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B), because of the 'defeat devices' (ECM software). VW admitted the presence of defeat devices. This can incur a civil penalty of up to $3750 (or $2750 for violations prior to 13 January 2009) for each occurrence (CAA § 205(a), 42 U.S.C §7524(a), 40 C.F.R. §19.4). We refer to this as the 'defeat devices fine'. EPA also alleged that VW violated section 203(a)(1) of the CAA, 42 U.S.C. § 7522(a)(1) because the defeat devices mean that the vehicles 'do

VW FOIA, EPA 06/20/2017 2017-FFP_038384

not conform in all material respects to the vehicle specifications described in the applications for the certificates of conformity that purportedly cover them'. Violation of section 203(a)(1) of the CAA, 42 U. S.C. § 7522(a)(1) can result in a civil penalty of up to $37 500 (or $32 500 for violations prior to 13 January 2009) for each occurrence (CAA § 205(a), 42 U.S.C §7524(a), 40 C.F.R. §19.4). We refer to this latter as the 'COC fine'.

Here we do not consider the legal strength of EPA's argument, but comment on the public policy aspects. For a policy that aims to increase social welfare, the level of fines for a given violation should be considerably higher than the marginal social cost of that violation (Polinsky and Shavell 1992). Our estimates suggest that the median monetized mortality cost of the alleged violations over the lifetime of a vehicle is ~$2800, and may be as high as $7500. This suggests that the maximum defeat device fine alone would not be significantly higher than the social cost of the violation. However, if the COC fine can be assessed, then total maximum fines of $41 250 would be at least five times higher than the social costs of the fine, and likely 15 times higher. This suggests that the CAA and its implementing regulations provide sufficient scope to assess a fine that exceeds the social costs, potentially by a significant factor. We note that this is based on the expected full social costs from those vehicles already sold if the issue were not corrected. If instead only actual damages to be incurred from excess emissions until the end of 2015 are considered, then the social cost per vehicle is estimated to be ~$940, or at most $2600. In this case the same broad conclusions would apply—that the defeat devices fine alone could not significantly exceed the social costs, but that the defeat devices and COC fines in combination do provide such scope.

Finally, we note that while the 18 September 2015 EPA letter to VW cites ozone exposure resulting from the excess NO_x emissions as a concern, we find that 87% of deaths are due to fine particulate matter exposure, with 13% due to ozone.

Acknowledgments

We would like to thank Dr Andrea Pozzer and Prof. Jos Lelieveld at the Max-Planck-Institut für Chemie for their assistance in implementation of the integrated exposure-response function for health impact calculation.

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VW FOIA, EPA 06/20/2017 2017-FFP_038386

United States District Court
Northern District of California

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

IN RE: VOLKSWAGEN "CLEAN DIESEL" MARKETING, SALES PRACTICES, AND PRODUCTS LIABILITY LITIGATION

_____/

MDL No. 2672 CRB (JSC)

PRETRIAL ORDER NO. 6: APPOINTMENT OF ROBERT S. MUELLER III AS SETTLEMENT MASTER

This Order Relates To:

ALL ACTIONS

_____/

The Court previously provided notice of its intent to appoint **Robert S. Mueller III** as Settlement Master. (Pretrial Order No. 5, Dkt. No. 797.) The Court gave the parties an opportunity to respond to the Court's notice by January 15, 2016. *Id.* The date for the parties to respond has passed, and no party has objected to the appointment of Mr. Mueller. Accordingly, the Court orders as follows:

1. The Court appoints Robert S. Mueller III to facilitate settlement discussions among all parties to this multi-district litigation as soon as is feasible. Mr. Mueller will abide by the potential conflicts procedure outlined in Exhibit B to Pretrial Order No. 5. (Dkt. No. 797-2.)

2. Mr. Mueller's authority is limited to facilitating settlement discussions. Mr. Mueller will not adjudicate, or assist the Court with adjudicating, any issues in these consolidated proceedings.

3. The Settlement Process

a. As Settlement Master, Mr. Mueller has the authority to schedule at his discretion any settlement discussions; to decide who shall participate in the discussions, including what party representatives are needed; and to choose where and how the discussions are to occur.

b. Mr. Mueller, all counsel and parties, and any other persons participating in settlement discussions shall treat as "confidential information" the contents of any written settlement statements or other settlement-related communications, anything that happened or was said, and any position taken or view expressed by any participant in connection with any settlement conference or discussion. "Confidential information" shall not be:

(i) Disclosed to anyone not involved in the litigation;

(ii) Disclosed to the Court; or

(iii) Used for any purpose, including impeachment, in any pending or future proceeding.

c. To facilitate settlement discussions, Mr. Mueller may have ex parte communications with any party and party representative. If a party does not want Mr. Mueller to share any of the contents of an ex parte communication with another party, the sharing party shall make that desire clear to Mr. Mueller.

d. Notwithstanding paragraph 3(b)(ii) above, upon the agreement of all participating parties, Mr. Mueller may communicate "confidential information" to the Court without violating this Order or the rules governing confidentiality of settlement discussions. Mr. Mueller may otherwise communicate with the Court regarding non-confidential matters, including procedural issues and updates on the progress of settlement communications; but, as explained above, he shall not communicate any substantive settlement matters to the Court absent the parties' agreement.

4. The non-government plaintiffs and defendants shall jointly compensate Mr. Mueller and any personnel working under his direction at their normal and customary hourly rates. Mr. Mueller may incur necessary expenses and costs at reasonable amounts to permit him to fully facilitate settlement of these related actions, and the non-government plaintiffs and defendants shall jointly reimburse Mr. Mueller for such costs and expenses. Such costs and expenses may consist of, but are not limited to, the engagement of additional necessary personnel, including any outside experts. Any disputes regarding compensation, costs and expenses, or the allocation of payment of such fees and costs among the parties, shall be brought to the Court's attention.

VW FOIA, EPA 06/20/2017 2017-FFP_038388

The Court thanks Mr. Mueller in advance for his service to the parties and the Court.

IT IS SO ORDERED.

Dated: January 19, 2016



CHARLES R. BREYER
United States District Judge

United States District Court
Northern District of California

VW FOIA, EPA 06/20/2017 2017-FFP_038389

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

BEFORE THE HONORABLE CHARLES R. BREYER, U.S. DISTRICT JUDGE

- - -

JACQUELINE CORLEY, MAGISTRATE JUDGE

ROBERT S. MUELLER, III, SETTLEMENT MASTER

- - -

IN RE: VOLKSWAGEN "CLEAN DIESEL" MARKETING, SALES PRACTICES, AND PRODUCTS LIABILITY LITIGATION,	Case No. 3:15-MD-02672-CRB

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REPORTER'S TRANSCRIPT OF
CASE MANAGEMENT CONFERENCE
THURSDAY, JANUARY 21, 2016
SAN FRANCISCO, CALIFORNIA

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SAN FRANCISCO, CALIFORNIA; THURSDAY, JANUARY 21, 2016

8:00 A.M.

THE CLERK: Calling 15-MD-02672 In re: Volkswagen Clean Diesel Marketing Sales Practices and Products Liability.

THE COURT: Good morning, ladies and gentlemen.

I'd like the defendants' counsel to identify themselves if they will, please.

THE CLERK: Please come to the podium.

MR. GIUFFRA: Your Honor, it's Robert Giuffra, Sullivan & Cromwell for the VW defendants. And also Mr. Jeffrey Chase of Herzfeld & Rubin for the VW defendants.

THE COURT: Good morning.

MR. GIUFFRA: Good morning, your Honor.

MR. CHASE: Good morning.

THE COURT: Well, ladies and gentlemen, I know you're crowded out actually into the hallway, and I regret that, but I'd like to welcome you to San Francisco and spend a few minutes introducing some of the people who will be the players in this hearing.

I do want to advise you that you should keep your voices up as you speak. We are on CourtCall, which means that a number of people across the country are participating by telephone.

To my right is Magistrate Judge Jacqueline Corley, and she will be assisting me, ably as she has done over the years, in

VW FOIA, EPA 06/20/2017 2017-FFP_038418

connection with this litigation. She was very instrumental in the MDL involving Celebrex and Bextra that I had many years ago, so she may be familiar to some of you.

I'd also like to introduce and welcome Robert Mueller, who is seated there in the bailiff's box. That's not the dock, that's the bailiff's box, and welcome him to these proceedings.

He is the settlement master. He was appointed last week. The Court received no objections to his appointment, and I am delighted that he has accepted this position. He is -- usually one says about a person involved in settlement, well he is a key to the settlement process. In this case he is actually the key to the settlement.

There are -- as I said the last time we assembled, this is an unusual case. It's an unusual case in several aspects. It is obviously not a who-done-it type of case. It is more of a case of how do we fix what was done. If it can't be fixed, then what is fair and just compensation for the people who have been damaged by this matter.

I am looking to Mr. Mueller, not just for his expertise, but his wisdom in bringing parties together to address the concerns, obviously the consumers, dealers, regulators, and, of course, other defendants. And I believe he is a person that can accomplish this task. It's not a simple task, but it is a task that is going to require a great deal of effort at the outset in order to see whether or not we can achieve a reasonable

settlement of the case.

In the order appointing Mr. Mueller, I emphasized the fact that he will be receiving, from the parties, confidential information or information which he will treat in confidence.

I've been told on very good authority that Mr. Mueller is a person who can actually keep a secret. And that's unusual in Washington, and perhaps nationwide, but I think we can rely on Mr. Mueller's ability to keep matters in confidence. I know he will.

But, he will use that information in an effort to try to bring the parties together and try to address the concerns that we all have in connection with this litigation.

So I am saying to all of you, to the government, to the defendants, to all plaintiffs' counsel, you are to cooperate fully -- I mean fully with Mr. Mueller. You are to give him whatever information he is seeking. You are to engage on his timetable with the process, because it is essential that we all look to the larger purpose here rather than the individual purpose, and the larger purpose is to try to address this problem with immediacy.

We have out there 575,000 or more vehicles that are in violation of environmental standards set by various governmental entities. This is a problem. It's a problem for the environment. It's a problem to every person who will come into contact indirectly with the use of these vehicles. That's

number one.

Number two, it's a problem to the consumer who bought this vehicle. It may be a problem to the dealer who sold these vehicles. So these problems, while they are economic, still are ongoing; and because they are ongoing, there is a real need to move quickly through this process and hopefully we can resolve it.

Let me start out by asking defense counsel to give me a status. I have a number of questions, but I want to find out first of all whether the parent company has appeared in the action, and where we go from there --

MR. CHASE: Good morning, Judge.

THE COURT: If you would use the microphone.

MR. CHASE: Yes. The parent company, Volkswagen AG, has appeared, Audi AG has appeared --

THE COURT: Pardon?

MR. CHASE: Volkswagen AG and Audi AG have appeared, the foreign entities, so they are in this lawsuit.

THE COURT: Okay. What is the status of discussions with EPA?

And the reason I ask that, of course --

MR. CHASE: I'll defer to my colleague on that, Judge, if I may.

THE COURT: Okay. I, like all of us here, read the papers, and while it may not be part of any filing in front of

the Court, it is of common knowledge that there was a meeting with the EPA. I think there was also a meeting with the California Air Resources Board and maybe others, but I'd like to have some update on that if you will.

MR. GIUFFRA: Yes, your Honor. Robert Giuffra again for the Volkswagen defendants. We agree one hundred percent with what your Honor has said about the importance of resolving this issue as quickly as possible.

Last week the CEO of Volkswagen AG met with the EPA administrator. Another senior official met last week with the CARB officials, and we are moving forward with all deliberate speed in order to come up with a fix that is something that CARB and EPA will agree is correct. It's not like we can just go and fix the cars. We've got to do it in a way that's consistent with CARB and EPA requirements.

So right now we are working full speed ahead to give them information and to move ahead.

What you read about last week, for example, with respect to CARB and CARB saying well, the recall plan was something that, you know, we don't approve of, that was a recall plan that was put forward in early December. There have been subsequent discussions and proposals, and those discussions are ongoing, and the company is committed at the highest level to trying to move this ball forward.

We obviously believe that the appointment of Mr. Mueller is

an excellent part of that process, because we believe a global solution is the best possible solution for the company.

THE COURT: Well, can you give me -- can you be more definite in terms of dates that you think you will have before EPA -- let's take the EPA as an example -- a quote fix that is some type of, I guess mechanical adjustment to the car that will satisfy the Environmental Protection Agency?

Do you have a date?

How is that moving?

MR. GIUFFRA: Your Honor, as I understand it, there are literally teams of engineers in Germany working round-the-clock on the fix.

Now, the issue with respect to the fix is, it needs to be a sustainable fix, and a fix that actually works, because we don't want to do something that we think is a fix, and doesn't turn out to be a fix.

My understanding is that process is fairly -- you know, is fairly well along, and the company is hopeful that something can be put together relatively soon. I'd like to not give you a date because I'm not really -- I don't have the technical expertise, and I don't think -- you know, I haven't been given a specific date, it will be done by, you know, March 15th, but there's a goal here to try to get this done as quickly as possible, and there are literally teams of engineers working round-the-clock to accomplish that goal, as well as discussions

between lawyers and EPA and CARB.

And so we're hopeful that we can get this -- get a fix in place, you know, in the immediate future. Not -- we're not talking many, many, many months. We're trying to shoot for something much closer than that. I'm not in a position to give you a specific date.

Now, this also relates to the Fineberg program --

THE COURT: I'll get to that in a minute because I know they are related, but I have to assume that there is a relationship between the mechanical fix -- if it can be fixed. I don't know -- has Volkswagen advised EPA whether or not it can be fixed?

MR. GIUFFRA: I think the answer is it can be fixed. There's a -- for all of the cars. The question though is one of timing. And for some of the vehicles it may well be that the timing is too far into the future, so we might have to do a buyback or some sort of a -- some sort of a solution like that for some subset of the vehicles, but that hasn't been determined yet.

There's been discussions about the particulars with EPA and CARB, but the plan is to fix a large majority of the cars. There may be some number that, you know, we might have to do some kind of a program involving, you know, a buyback.

THE COURT: And that's what we're talking about, the protocols of the claims -- claims procedure that Mr. Fineberg

is --

MR. GIUFFRA: Mr. Fineberg is hard at work on his claims protocol.

THE COURT: But does he have the protocols?

Has the company given him a set of protocols that he can then promulgate and start this claims procedure?

MR. GIUFFRA: Those issues are interrelated because whatever -- the Fineberg protocol will involve both the fix that will have to be approved by EPA and CARB, and then perhaps some additional compensation that would be paid to owners of these vehicles. And so we've worked out with Mr. Fineberg some of the basics of the protocol. Mr. Fineberg has met with senior officials at Volkswagen.

The issue though of course is, what exactly is the fix. And once that gets finished -- and that's an engineering matter -- that will then be folded into Mr. Fineberg's protocol.

My understanding is Mr. Fineberg would then go and meet with -- among other folks --

THE COURT: Right. But I'm concerned about the timing of it and the delays, because it's not simply -- as I said earlier, it's not simply addressing a problem that has concluded, and therefore just what does one do to, you know, compensate people. It's more of a -- since it's an ongoing problem, there is an immediacy to getting on it now.

Now, if there are vehicles that -- that Volkswagen thinks --

or classes of cars that Volkswagen thinks can't be successfully engineered in a reasonable period of time -- by "reasonable period of time," I think we're certainly talking about a few months from now. It's now been four months, so I think we're talking about a few months now. If it can't be, then I would think that Mr. Fineberg should be given, if he hasn't been, some protocols that will at least address the concerns of some of the people who have these vehicles, if they can't be successfully reconfigured or reengineered. So that's my concern.

Now, I don't expect you, this morning, to -- to give that type of information to me. I don't know that you have it at this point.

However, I do expect you to give it to Mr. Mueller, and I do expect you to cooperate in two respects.

First, I think you have to -- that is Volkswagen, has to provide Mr. Mueller with enough technical information that he can then understand exactly what is the process that Volkswagen is going through. And then I think it's important that he be given enough of the financial information, to be shared only with Mr. Mueller, as to the company's concerns and how they're going to address the problem.

So -- and that should be done now. That should be done now. And, you know, where it goes from there, I don't know. It may be successful, it may not be successful in addressing these problems, I don't know. But, I know one thing, and that is if

this case, with these lawyers, will move ahead -- and it is my intention to select a lead counsel, and to select a steering committee, and give them directions for what I want them to do by the next case management conference, which will be held -- the initial case management conference -- I thought it was February -- did I say February 25th? Yes. February 25th, a month from now. So they're going to have specific directions including a discovery plan, and so I want -- I think that it is necessary for you to do the things with Mr. Mueller, and with Mr. Fineberg, and make sure -- because this is your -- this is Volkswagen's plan, and I think for addressing a number of these cases it can be a very successful plan, but it has to be -- it has to be worked out.

So would you please go back to your client, explain the urgency of it, explain that from the Court's perspective there may not be answers to particular problems right now, but -- answers, that is, in a technological way, but that this case can't await technological advances because of the fact it is an ongoing problem, and it's not insoluable from a compensatory view. So I would ask you that you do that.

MR. GIUFFRA: And your Honor, very much. And I can assure you that the company is fully committed to complying with the Court's directives and moving as quickly as it can. Literally there are people working round-the-clock, lawyers, as well as engineers, and I'm hopeful that we'll be -- we'll get

where we need to be relatively soon, and we clearly believe that Mr. Fineberg's proposal and working with Mr. Mueller is a way to get a resolution as quickly as possible.

As your Honor said at the last conference, this is obviously an issue that is an important one as a matter of public policy and the company, as I said, is focused on it at the very highest levels, and is committed to moving forward as quickly as we can.

THE COURT: Thank you.

Let me spend a few minutes before we hear the presentation talking about Plaintiffs' Steering Committee and plaintiffs' lead counsel.

First, let me explain that this is the final step in a process that started approximately six weeks ago in selecting a steering committee and plaintiffs' lead counsel. The process started with soliciting applications. I received more than 150 applications from 150 extremely well qualified counsel, and I am -- if I could be candid, I've made some judgments in my own mind as to who I would consider, or who seems to be appropriate in this particular case, but of course, I'd like to hear from anyone if you want to add to what has already been said.

However, before doing so, I want to point out a couple of things. Number one, it has been suggested by the Center for Class Action Fairness in an amicus brief, that some of you may have seen, that we put this out for competitive bid, and that because the argument is, as I understand it, look, liability is

VW FOIA, EPA 06/20/2017 2017-FFP_038428

fairly certain in this case, damages are easily, in some cases, ascertainable -- easily ascertainable, so why not just have a competitive process and give it, I guess, to the lowest or highest -- in this case it's the lowest -- the lowest bidder -- qualified bidder. And that has, I would say, some superficial appeal, but it's not the way I think this decision should be made. And I think not for a couple of reasons.

Number one, the concerns that the Center has raised can be, and will be addressed by the Court in the -- in the final fee application submitted by any counsel.

In a class action the Court has the discretion -- as a matter of fact, has the task -- has the task of ensuring that the fees charged are reasonable, and that the compensation to the class is adequate. And that one is not at the expense of the other. And I think anybody who knows me, knows that I'm not shy about exercising that task in the final analysis.

So maybe a lot of you just want to leave at this point, but -- and that's obviously how I'm going to address it.

I'm also going to issue, in a later order, some criteria as to how I want counsel to keep time -- keep their records and expenses and so forth, so that on an ongoing basis I'll be in a position to determine how -- what fees are -- what fees are fair.

I also want counsel to understand that this process is the process in which the Judge appoints a particular person based

upon that particular person's ability, and experience, and expertise to sit on a Plaintiffs' Steering Committee.

I'm going to appoint you. I'm not going to appoint your partner. I'm not going to appoint the associates. I'm not going to appoint the paralegals. I'm not going to appoint the firm. I'm going to appoint you.

What that means, as far as I'm concerned, is that you -- when you come up here and tell me or in your application have told me that this is a personal commitment, that you will devote the individual -- you, individually, will devote the time and the effort necessary as required by either the Plaintiffs' Steering Committee or plaintiffs' lead counsel.

So if it's just simply the thought that well, my firm can handle this, or other people can handle it, I wouldn't -- I wouldn't urge your own application because it's very personal.

I know a number of you and there are a number of you that I don't know, but I've sort of gotten to know through the application process, and the number of you who I don't know, I have vetted. I have contacted judges and had conversations with them about whether or not you should be selected in this process.

On the other hand, I don't want you to believe that if you're not selected in this process, you've been done in by your judicial recommendations. Of course you can believe whatever you want to believe, but it's really not the case.

The fact is, that I've got to get this down to a reasonable number of people, and I'm looking at different things, and in particular I'm looking at some geographical diversity, because while you are all dragooned into the Northern District of California, how that happened I have no idea, but you're all -- you're all here, and it seems to me that just because it is a Northern District base that is in the litigation at this point, it's got to encompass the country, and it's got to be represented.

I've also looked at the number of cars that have been sold in each state, and that's a factor that the Court is considering as well.

So with that, we will start this process. I'm simply going to go down the list of ten names -- I'll go by groups. I don't care who -- you can -- when I give you ten names of the people who are going to speak, you can speak in any order.

So I don't want to spend time -- well, I go first, I go third, I go fifth, but I want to just do it in groups of ten, and I want you to understand that if, for some reason, I have an application and the attorney hasn't spoken, that's not a disqualifying factor, and that I won't be disappointed. Though perhaps your colleagues will, if you don't use the full allotment of two minutes to tell me why you're the best lawyers in the country. Although I will obviously make the observation that if it takes you longer than two minutes to tell me that

fact, you probably aren't.

So let's start with -- Mary Alexander, Paul Whalen, Lesley Weaver, Mark Robinson, Henry Garrard, John Edwards, Scott Nealey, Debra Hayes, and Christopher Seeger, in any order. Just identify yourself.

Go ahead, Ms. Alexander.

MS. ALEXANDER: Thank you. Good morning, your Honor.

Mary Alexander, trial lawyer here in San Francisco practicing law for almost 35 years. I have represented consumers and plaintiffs throughout my career.

In 2013 I tried, along with a team, the lead paint case before Judge Kleinberg, which resulted in a $1.15 billion verdict to protect children from lead poisoning throughout California, with a lot of effort among different lawyers throughout the state.

In that case I used my science and knowledge about pH in environmental health and I can apply my science here as well.

I've spent my career not only assisting my clients, but also working with attorneys on important legal issues. As president of the Consumer Attorneys of California, we had a battle of three initiatives at that time and had to work with lawyers throughout the state.

Then as president of ATLA -- Association of Trial Lawyers of America now AAJ -- we also were fighting to protect consumers. Most notably when I was president-elect and 9/11 happened in

2001, I was also vice president of the Trial Lawyers Care, and helped establish that program going back and forth to New York to set it up and get lawyers -- hundreds of lawyers throughout the country to represent the victims -- thousands of them, the families of 9/11, and working with Fineberg, and actually presented one of my personal cases that I handled in front of Ken Fineberg, and enjoyed very much working with him.

I'm proud to say this last year the *Daily Journal* appointed me as one of the top 25 plaintiff lawyers in the State of California, and I've been inducted into the California Bar Trial Lawyer Hall of Fame.

My application has many other important cases I've handled going back to Fen-Phen, which I tried the case in Southern California, the San Bruno fire cases, Vioxx, Tenet Healthcare --

THE COURT: Thank you very much.

MS. ALEXANDER: Thank you.

THE COURT: Go ahead.

MR. WHALEN: Good morning, your Honor.

THE COURT: Let's identify yourself.

MR. WHALEN: Yes.

Good morning, your Honor. I'm Paul Whalen.

I'll be very brief. There's a lot of very, very big experienced firms before you today, and while I'm experienced, I'm not big. I am, however, bringing something unique here.

In the beginning of this litigation I brought together ten

former attorneys general of the various states, including Puerto Rico and Hawaii. If you're looking for diversity across the country, my group behind me represents that.

This Court recognized the need for experience in dealing with state issues. These gentlemen all have that kind of experience. They've all gained the public's trust. They'll be advising me. I've got over 20 years' experience in consumer fraud. I've got over a quarter of a billion dollars back for consumers, and I'm willing to dedicate my time to this. That's it.

Thank you, your Honor.

THE COURT: Thank you very much.

MR. NEALEY: Good morning, your Honor. Scott Nealey.

You've personally observed my work in Bextra/Celebrex obviously.

I'd just like to mention three things that I think makes me probably uniquely appropriate for this litigation, and that is that I am fully up to speed on these issues.

I have litigated product defect cases against auto manufacturers, including Volkswagen. I've litigated against Herzfeld & Rubin over 15 years.

I understand the technical issues in this case. I've done the technical discovery in every automobile case I've ever done. So I understand the technical issues regarding the fix, and I think there are a few people in this room probably who do.

Second of all, I have litigated complex class action cases on a single state and multistate basis. I have personally certified eight classes involving automobile diminished value, so I understand the law in this area. I understand the precedent, and I've actually created a number of those precedents.

Third, I understand the damages issues. I understand regression analysis. I've worked with automobile auction data, and when it comes to being up to speed, being able to settle this thing, you have to know what the damages are. I have personally done that work.

I think, as you'll probably remember from Bextra/Celebrex, when somebody had to come argue the statistics, it was me personally who did it to you, your Honor.

So I'm not from a large firm. I don't have any entanglements. I have the time and the willingness to plug myself into this litigation, and to, as I did in Bextra/Celebrex, work collaboratively both with fellow plaintiffs' attorneys, but also I think very importantly with the defense counsel in this case.

Thank you.

THE COURT: Thank you. Yes?

MS. WEAVER: Good morning, your Honor, Magistrate Judge Corley, and Mr. Mueller. I'm Lesley Weaver. I'm an equity partner of Block & Leviton, a firm based here in Oakland,

California. We practice national and international antitrust class work. I've been personally appointed co-lead in such cases.

I seek to represent the Porsche consumers in this action. I'm the only lawyer representing a Porsche client who seeks to do so in this proceeding. My firm, with co-counsel, filed the first antitrust claims brought against any defendant in this action.

On November 4th, 2015, Porsche Cars North America announced it would discontinue sales of the Cayenne D, but this is only on the heels of the EPA's second notice of violation. As a result, Porsche Cars North America decided to voluntarily discontinue sales of model years 2014 to 2016.

Notably unlike the televised -- or should I say YouTube statements from VW admitting liability, there has been no similar admission regarding these model vehicles. Porsche's statement has simply been that it would discontinue sales and it was working to resolve the matter.

My client, Carol Copeland, like many of the plaintiffs involved in this case, is seriously aggrieved and offended by the misrepresentations here. Her complaint was filed on November 11, 2015 --

THE COURT: Do you have a sense of how many Porsche vehicles there are --

MS. WEAVER: I'm sorry?

THE COURT: Do you have a sense of how many Porsche vehicles there are?

MS. WEAVER: For 2015 we believe it's 4,777 Cayenne vehicles. It seems like a low number, but if you assume a sticker price of $61,000, that's roughly $291 million in sales for that year only. For those three years, I do believe the sales varied and increased. I would estimate 13 to 15,000 vehicles.

THE COURT: And there are two cases before the MDL Panel now in which you're objecting to an MDL transfer to this Court -- two other Porsche cases.

Do you have -- you are the only one now --

MS. WEAVER: There is one other firm that has a Porsche plaintiff that seeks to represent Porsche clients. We think it's a good firm. We would work with them if you so directed, your Honor, but we believe this case belongs here in this MDL.

THE COURT: Thank you very much.

MS. WEAVER: Thank you.

MR. GARRARD: Good morning, your Honor. I'm Henry Garrard from Athens, Georgia.

Two comments I'd like to make to the Court. I have a diverse background, and for two decades I worked as a defense lawyer representing the asbestos industry.

I tried cases all over the country. I turned into a settlement lawyer, and settled thousands of cases in that

litigation.

So I have an experience element from the defense side, the corporate side, and understand those issues.

The second point that I'd like to make to your Honor, is that I'm the coordinating co-lead in the transvaginal mesh litigation before Judge Goodwin.

In the course of that, I have resolved cases with five of the major six defendants. I am in the process of working with six of the major six.

Judge Goodwin has charged me with trying to help him come to an end point in that litigation, and continue to resolve cases even with defendants with whom I have already resolved. We are resolving thousands of cases there. So we do have the experience and the success with that.

Other than that, my application speaks for itself, your Honor.

THE COURT: Thank you.

MR. GARRARD: Thank you.

MS. HAYES: Good morning, your Honor. Debra Hayes from Houston, Texas.

I have been involved with automotive diminished value cases for 18 years where we have sought just and fair compensation for those people for the diminished value in their vehicle, which is a huge issue in this Court, in this case.

I have also sat -- I have also been on many, many class

actions, been named class counsel, and I currently sit on the PSC for the Blue Cross Blue Shield antitrust litigation in Birmingham, Alabama under Judge Proctor. There I applied for a lead position, and he unilaterally appointed me to the Plaintiffs' Steering Committee.

I'm a very hands-on, a very personally involved person. I'm very involved in the Blue Cross case. I look at the pleadings that are filed so that I know what's going on --

THE COURT: Is that in front of Judge Proctor?

MS. HAYES: Yes. Yes.

THE COURT: All right.

MS. HAYES: I'm involved in conference calls, if we have meetings, I attend the status conference, I attend the mediations, and I also work on three committees that are in that case as well.

I have worked with Mr. Fineberg in the polybutylene litigation long ago, 1997, I believe, so I am familiar with him and his team of people.

And finally, I would say, your Honor, that while there are a number of lawyers who have a great deal of experience in the auto defect cases, I think it's important that there be someone on the Plaintiffs' Steering Committee who brings fresh perspective and fresh ideas, and I could be that person for the Court.

THE COURT: Thank you.

MR. EDWARDS: Good morning, your Honor.

THE COURT: Good morning.

MR. EDWARDS: I'm John Edwards from North Carolina, which you probably know. It's a pleasure to be in your court.

I was listening to you this morning and the way you described this case, which I think is dead on. I think it is a different case. It's an unusual case. It's hard to see this as one of these cases that a big group of lawyers are going to make a lot of money. I don't think it's that kind of case.

There are -- first of all, I'm not an MDL expert. Don't claim to be. I have done some, but there are a lot of people in this room that have great deal more experience in that area than I do, including you by the way, and I know these people. I know them very well professionally, personally. There are people in this courtroom right now and they are critical to this process, but what I guess I would ask you to think about and ask yourself is, what's the best for the plaintiffs?

What's the best committee that can do the best job for these plaintiffs?

And it certainly requires people with a great deal of MDL expertise. That's not me.

There are great people here who can do that job, but the question is: What do we need to be able to do to bring this case to an end, efficiently, and as quickly as it can be done?

And I think there are a lot of players. You've mentioned

most of them yourself. There are federal agencies, the Congress may play some role, the Court obviously will be involved, CARB will be involved, certainly the possibility of foreign countries being involved, Germany for sure, and the question is: Would it be a good complement to the MDL leadership in this group, to have someone who's dealt with all of those agencies and foreign countries at the highest level? That's the question.

THE COURT: Thank you.

MR. EDWARDS: Thank you, your Honor.

THE COURT: All right.

MR. SEEGER: Good morning, your Honor. Chris Seeger.

There are a lot of great lawyers in this room. The truth is, you have a wealth of riches, many of whom could lead the case and do a great job. I'd like to be one of them.

In my application I think I pretty completely lay out my qualifications. I consider myself both a trial lawyer -- I like to try cases -- and a settlement negotiator.

In the NFL litigation I was co-lead counsel, and I handled the negotiations there.

In Vioxx in front of Judge Fallon I was co-lead counsel, I tried cases, and I was a lead negotiator. In the Chinese drywall litigation I was head of the trial team.

I don't think we're going to have trials here, your Honor, but if we do, I'm ready to go.

THE COURT: I think we could. You know, I know I spent

VW FOIA, EPA 06/20/2017 2017-FFP_038441

a great deal of time talking about settlement, but it's entirely possible -- and I need people who -- on that committee who can take a deposition. I need people who can talk about trial strategy.

Listen, how do you get a settlement, when will you a get a settlement, is that you show you're ready to go to trial, and you would be effective if you went to trial. We have to get real. I understand that.

So even though I've spent all this time talking about settlement, because I think it's in the clients' interests here, and the parties' interests across-the-board, I also believe that a way to bring that about is to have an effective trial team, and if it fails to settle, that trial team will be trying the case.

So, you know, you don't have to downplay any experience you have as a litigator, or putting it the way I always like to put it as a trial lawyer, not just as a litigator, as a trial lawyer, and I know you are Mr. Seeger.

MR. SEEGER: Yes. And I enjoy trying cases, but I also enjoy resolving pretrial, and I've done that in the NFL, Vioxx, Chinese drywall, and Zyprexa in front of Judge Weinstein.

I would also conclude by saying I think I'm a team builder. I know how to reach out to people who you may not appoint on the committee, and to include them. I think that's important.

Thank you for your time.

THE COURT: Thank you.

MR. ROBINSON: Good morning, your Honor. Mark Robinson.

THE COURT: Good morning.

MR. ROBINSON: I've served with you on the Bextra/Celebrex case and I enjoyed it, your Honor. And I think your Honor knows I've managed and resolved auto defect cases for many years. I believe I'm qualified to serve as a lead or co-lead counsel.

Everybody agrees that early settlement makes sense here, but settlement is different than saying it. You've got to get it done, and I think that from my experience I can help you get this case settled.

As co-lead counsel with Judge Selna on the Toyota Unintended Acceleration case, your Honor, you can check with him, I think I helped get that case settled.

I do believe this case should settle in six to eight months or whatever. I'm a little concerned about what I heard this morning about getting the data that we need, because we need to get the fixes in, your Honor, and then of course I think we have the experts ready right now from the Toyota case, and from other cases that can verify, and validate these proposed fixes.

We're hoping if CARB and EPA agree with these fixes, then maybe we don't have to, but I do think there probably should be some testing in this MDL, and I think I could help facilitate

that, your Honor.

I also feel that I can facilitate a modicum of discovery in Germany and in the U.S. as needed.

So I can assure this Court that I'm one hundred percent committed to this litigation and if appointed, I will give everything I have.

I thank you very much, your Honor.

THE COURT: Thank you.

So the next ten names, James Cecchi, Bruce Simon, Michael Hausfeld, Steve Skikos, Larry McDevitt, Derek Witte, Lori Andrus, Benjamin Bailey, Allan Steyer, Frank Pitre.

MR. SIMON: Good morning, your Honor.

THE COURT: Mr. Simon.

MR. SIMON: I want to just say to the Court that you would have my personal commitment and attention, as you know from my experiences with you in other cases, I do almost everything in the cases. I engineer these cases when we bring them, with an eye out for what the trial would look like. I don't go down any dry wells. I try not to march up any hills that I can't win battles on, or bring anything to the Court that we don't think is very important.

I think that efficiency and personal commitment to the details of the case, as well as managing the cases is very important.

I think that I would bring to the case -- and I hope your

Honor agrees -- integrity, transparency, respect of both plaintiff and defense counsel, and a mind that can help not only plan a case for trial, but also plan all the people who need to be involved to get it to the point where it can resolve or go to trial. And I think your Honor is correct, there may be different tracks here, some of which need to be resolved right away to fix the problem, but other tracks that might have to go out further.

So one of the things I've been thinking about if I was appointed lead counsel or on the steering committee, is how we delegate and deploy the forces in the field so that we maybe have a settlement track and people working on that, while at the same time there's a litigation track and people working on that, and within both tracks there might be things that people are experts in, and we should be able to deploy those people properly, and I think that would be one of the immediate things we would be want to tell you at the case management conference.

We do have experience. We've done a Volkswagen case -- consumer case ourselves with not a large structure. It settled for a hundred percent -- one hundred cents on the dollar for the consumers. It was a timing belt case in front of Judge Real. And I know that I don't have to say this, but you have me, and I will give you my commitment that you would have me, and all my attention on this case.

THE COURT: Thank you.

MS. ANDRUS: Good morning, your Honor. Lori Andrus. Thank you for hearing from me today.

There are three reasons why the Court should look favorably on my application.

Your Honor, I am recognized as an effective leader and a consensus builder. I was elected to lead the women's caucus of AAJ, formerly ATLA, that's a national network of thousands of lawyers whose mission is to protect the Seventh Amendment.

I also have the support of prestigious members of the bar including my mentor Elizabeth Cabraser, Mark Robinson, Joe Cotchett, Frank Pitre, and others who are listed on the attachment to my application.

I secondly am a passionate client advocate. Being a trial lawyer is in my DNA, your Honor, and advocating for consumer rights and against corporate misdeeds is what I've dedicated my law practice to for nearly twenty years.

Thirdly, your Honor, I get things done. I was co-lead counsel in an MDL involving Michelin run flat tires. I've worked on other vehicle litigations. I've worked on many other MDL's, including as an appointed PSC member. And heading up discovery efforts is one of my strong suits.

VW has pulled the wool over our eyes once, your Honor, and we should be careful not to be lulled into a false sense of cooperation despite what everyone says. For example, the CEO, Mr. Müller, has promised transparency, but we also read and know

VW FOIA, EPA 06/20/2017 2017-FFP_038446

that he is -- that VW is now invoking German privacy laws to hide relevant emails, and potentially to shield corporate higher-ups.

So how far up the chain this information went is critical information that will need to be discovered before any reasonable settlement offer could be entertained.

And I and my law partner are both known for tenaciousness, and we can promise quick and thorough work conducting the necessary discovery in this matter.

THE COURT: Thank you.

MS. ANDRUS: Thank you, your Honor.

MR. CECCHI: May it please the Court. James Cecchi on behalf of James Cecchi from New Jersey.

Judge, I agree with your comments that geographic diversity in a national case like this is important. I always think it's best to have someone from New Jersey on a PSC, particularly in this case with the historical ties to the litigation, VW is a New Jersey corporation. Our firm is well established there. There are relevant offices there -- EEO office, engineering and environmental office involved in the clean diesel. We can facilitate depositions in Germany.

An important intangible factor, Judge, I have developed a skill as a settlement liaison on the plaintiffs' side. I've been appointed to essentially manage personalities and diverse groups on the plaintiff side. In the Aetna UCR, Judge Hochberg

appointed me to do that. I effectively did it over 18 months, brought it to settlement. That takes consensus building, leadership skills.

An intangible factor here, Judge, there should be personal interaction. Mr. Chase, my able adversary, is my neighbor in Caldwell, New Jersey. His office --

THE COURT: That helps his service.

MR. CECCHI: It will facilitate meet and confers. His office is near my office in Roseland. I think that's an important factor. We've worked well together in the past.

His colleague from Sullivan & Cromwell talked about the technical issues in this case. I have direct relevant experience involving diesel emissions technology, albeit in the on highway truck category, both Caterpillar, Cummins, and PACCAR. We recently settled the Caterpillar case.

I have technical expertise, patent expertise has allowed me to frequently play an important role in the Takata litigation. I played a liaison role in that case to NHTSA. I can play that role effectively here.

We're a state capital law group founding member of that group, with contacts in federal and state government.

I was hired after clerkship by Mike Chertoff, another high-ranking federal leader. I worked well with him. I believe -- I've never met the director, I believe I could work well with him. I would be honored. I have the time. We recently

resolved two cases, and I would be honored to serve on your Honor's committee.

Thank you, sir.

THE COURT: Thank you.

MR. McDEVITT: Good morning, your Honor. My name is Larry McDevitt. I'm a senior partner with the Van Winkle law firm, with offices in Asheville and Charlotte, North Carolina where I'm the managing partner.

I'm here applying for appointment to the steering committee. I want to commit to you that I have the time and resources and the willingness to serve on that committee, and I will do it if you choose to appoint me.

Being one of the older rats in the barn here to today, I don't claim to be able to read your mind, but as I think about it, I know that you're looking for experienced class action litigators. I am one. It's detailed in my resume.

Another thing you'll probably be looking for is someone with organizational skills. I've demonstrated that throughout my career from heading my law firm, to being Mayor of Asheville, president of the North Carolina Bar Association, and for 35 years hard work in the American Bar Association, including service on its board of governors, and my last job, being chair of the standing committee on pro bono service. We were trying to revamp pro bono program and services in this country.

Yet another is leadership. The ability to work with other

attorneys, but more importantly to get them to work with each other is sometimes a daunting task. I've certainly done that and that's been recognized by almost every peer group in my part of the country.

I would simply mention to the Court that I don't seek appointment as lead counsel, but I think I can be a leader, and useful, and a steadying influence on the steering committee in getting people to work together.

I know how class actions work. I know how they ought to work, and I know how to make them work in a sound and responsible way.

If you choose to appoint me, I'd be proud to serve. If you happen to look at my submissions and see our firm logo at the top, it says VW. That stands for Van Winkle not Volkswagen.

Thank you, your Honor.

THE COURT: Thank you.

MR. WITTE: Good morning, your Honor. Your Honor, Mr. Mueller, and counsel.

My name is Derek Witte. When I started my practice, I called myself a litigator, when I was an associate in Jenner & Block. Now, I call myself a trial attorney.

I'm very new to this, I've been doing a lot of RMBS work, and a lot of complex commercial litigation for several years, but I've never been hailed to another state when one of my cases was plucked from the filing jurisdiction, but I did what I do

when I don't know what to do and I hit the books, and I think there's some qualities that everyone needs in the committee -- the steering committee for the plaintiffs.

And whether I'm the person to serve that for the Court and the stakeholders or not, is not for me to decide, but I think we've talked a lot about cooperation, that's a big deal.

I had the pleasure of meeting Magistrate Judge Grimm from Maryland, and talking to him about his Mancia case at one of the Sedona conferences.

We talk a big game about cooperation, but it's hard to do, and I think it goes hand-in-hand with effective advocacy, which is the other aspect that someone on this committee needs. Effective advocacy means not making some arguments. We need to screen things for you.

The case that's been put upon this Court -- cases will only get more complicated no matter what we're saying this morning, and you need counsel who can be intellectually honest, bring only what it needs to the Court, and work as a team. I am not a repeat player. I'm fresh blood. There's good and bad that comes with it.

I do have substantive experience in E-discovery. I taught it in law school. I've handled a big E-discovery project, that's going to be a part of this. And finally, I was a part of, and worked very hard on a very complicated settlement in RMBS in the ResCap bankruptcy.

Thank you.

THE COURT: Thank you.

MR. BAILEY: Thank you, your Honor.

I'm Ben Bailey. I'm more accustomed to advocating for clients than I am tooting my own horn. I probably got that from my mother.

I would like very much to serve on this. I would like to do it personally. I am, however, always an unabashed advocate for my home state of West Virginia where this started.

The women and men in my law firm and I have spent days, and hundreds -- over a thousand hours now working with the men at the West Virginia center for alternative fuel emissions -- alternative fuel engines and emissions, CAFEE -- C-A-F-E-E.

My letter might not have done this organization justice, Judge. These are real car guys. They love diesels. They go home smelling of diesel fuel. For 25 years they have tested big diesel engines and small diesel engines. They've worked with manufacturers, with regulators and with environmentalists. They want this to work. They have taught me that the technologies in this case are complicated and are subtle.

In resolving this case, whether you want the fix to be settled quickly, or whether we end up in trial, I think it's going to require the knowledge, the expertise, and the testing capabilities of this organization, or one like it, and I'm not sure there is another one.

Those of us in West Virginia would like to be part of this fix. I would like to do it personally. We are up to speed and ready to go. And if you wanted to rename my little part of this case VW versus WV, it would be the best palindrome in the whole thing so far.

THE COURT: Well, also you bring the -- an aroma to the case.

MR. BAILEY: We can do that, but it -- it's hard to get it through the screening devices, your Honor.

THE COURT: Okay.

MR. BAILEY: Thank you, your Honor.

MR. PITRE: Good morning, Judge Breyer. Good morning, Judge Corley. I know both of you from the experiences we've had with Bextra and Celebrex together.

I also know Judge Breyer from the experiences we had with the Alaska Airlines case, and it was one thing that carried through in both of those cases, this Court set a firm trial date in both matters. The individuals who were assigned in leadership positions, including myself, developed strategies to get us there, because resolution, we all know and have learned, and has been the mantra for 35 years, a firm trial date is what resolves cases, because it's what causes people to act effectively and manage their affairs so that a result will happen, either by a jury, or by resolution through settlement. That's all that was carried through. That's been my mantra.

The second thing I'd like to talk about is, that the same practice -- we did that, I believe, in less than three years to get those cases resolved, where there were contested issues of liability and punitive damages, which is record-breaking.

The second thing I'd like to point out is, in this case in particular, this is an economic loss class that seeks damages, because they purchased the car that they were deceived into believing was eco-friendly. It wasn't. And people used a defeat device to do that. There has to be a remedy.

In the Toyota case, I was the individual who was specifically assigned to work with the team to develop the damages model that would take care of consumers, dealers, lenders, rental car companies. That required regression models. We heard about regression models.

In that case there were 22 different vehicle lines, 66 regression models. It covered everybody. And I took the expert depositions. I took all the depositions.

When it comes to hands-on, I have always been somebody who's been on the ground floor taking depositions, because the only way that you can prove to the other side you're ready is, if you're going to take a lead position, get involved taking the depositions so that you know what you're talking about.

Thank you, your Honor.

MR. SKIKOS: Good morning, your Honor. I'm Steve Skikos, and I'm very fortunate to follow Mr. Petri.

I am national counsel here in two San Francisco litigations. I listened carefully to your immediacy requirement. The last time I went to one of these beauty conferences, the judge interrupted me and said I was not very smart, not very good looking, and promptly appointed me lead counsel.

In this case I don't think I'm going to have the time to do all that work, because I have two other national litigations here with Retired Judge Kramer.

So I'm going to cede my time to this. I think that if you want somebody to say yes when they need to say yes, and no when they need to say no, that would be Chris Seeger. If you want somebody who has the experience to get this done, that would be Mark Robinson. And I'll let it go at that.

THE COURT: Thank you very much.

MR. STEYER: Good morning, your Honor. Good morning Judge Corley, Mr. Mueller. May it please the Court.

THE COURT REPORTER: Can I have your name counsel.

MR. STEYER: Allan Steyer.

In the fall of 2015 at the hearing on leadership, in the Anthem privacy case, a very experienced lawyer got up after about 15 others had made a presentation and Judge Koh said to the attorney, do I need lawyers who have expertise in privacy, or do I need smart, experienced lawyers?

The person responded without hesitation, your Honor, he said the Court needs smart, experienced lawyers who have handled

complex litigation.

I believe that that's one of the principles you should look to in deciding who to choose here.

In addition, I would respectfully submit that there are several other additional concepts that the Court should consider in putting together this team.

First, a proven ability to work with others on your side of the case. You have a lot of fine lawyers here. You also have some big egos. This is not a case where big egos should be involved. It should be a case where people can sublimate their ego to the will of the group to get the ball over the goal line.

Second part. In addition to being able to get along with your co-counsel, you need to get along with the lawyers who represent Volkswagen, because in the end you're going to be sitting down with Mr. Mueller and others to get this case resolved. And even though we may have disagreements on the conduct, on the economic damages that flow from it, you need to get along. I've worked with a lot with Sullivan & Cromwell.

Finally, I agree with Mr. Petri. Even though your emphasis has been settlement, you do need a trial date because that moves people to conclusion.

Thank you.

THE COURT: Thank you, Mr. Steyer.

Mr. Hausfeld.

MR. HAUSFELD: Good morning, your Honor. My name is

Michael Hausfeld.

As your Honor has pointed out and others have noted, this case has international implications. We have offices not only in London, but Brussels and in Germany, with extensive contact with the European commission, which, just as of yesterday, chimed in with regard to their investigation of the Volkswagen defeat device, and their interest in seeing it reach a conclusion.

Likewise, in the course of my career I have successfully tried and resolved some landmark cases with Mr. Mueller's senior partners.

We've worked extensively with Mr. Fineberg, and we've tried numerous class and nonclass cases to successful conclusion.

Lastly, your Honor, in the 1970's we were one of the first plaintiffs' counsel to bring cases involving clean air.

We had CFC's removed from the environment because of a lawsuit we brought against Dupont, and since then we have been retained by the South Pacific Islands, and consult with numerous NGO's around the world on climate change and the need for environmental integrity.

Thank you, your Honor.

THE COURT: Thank you.

So the next group Stephen Echsner, Josh Sanford, Lynn Sarko, Elizabeth Cabraser, Timothy Blood, John Poswall, Kristine Kraft, Virginia Anello, Hunter Shkolnik, and Charles Zimmerman. In any

order.

MR. ECHSNER: Good morning, Judge Breyer. My name is Stephen Echsner. I'm from the Northern District of Florida.

THE COURT: If you can keep your voice up.

MR. ECHSNER: Pensacola is my home. I represent Charles Barnes and Ms. Jean Barnes in a claim against Volkswagen that was filed in the Northern District. They are residents of Gulf Bridge, Florida and they are my clients.

I want to make two points to you this morning. First, commitment and secondly, experience. All of us recognize the most important MDL before us today raises significant public policy considerations involving the intersection of environmental and consumer laws.

Consumers in this case, your Honor, are best served by lawyers with commitments, and it is for that reason that I am willing to make a commitment to this Court for undivided attention and loyalty to the class.

I'm not a repeat applicant or a repeat litigant in MDL cases. I have familiarity with them from my experiences in two law firms very involved in the MDL process from Pensacola.

In fact, if I'm appointed to this PSC, I will avoid application and service on any other MDL until this one is complete.

Our -- my commitment and our firm's commitment has already been demonstrated in several regards. First, we filed the case.

Secondly, we had a protective order entered by the Northern District Judge and defeated a motion to stay.

Secondly, we presented no fewer than four conferences throughout the United States on the legal and environmental issues in this case. Many of the lawyers in this room actually attended and presented at those conferences.

One such expert that was engaged was asked to come and answer the question, how do internal combustion engines work? We're lawyers. We don't know these things. We hired a rocket scientist from Florida Technical Institute in Florida who came and told us how his career studying the emission of N-oxides cannot be fixed in this case.

THE COURT: Thank you very much.

MR. ECHSNER: Thank you for the opportunity, your Honor.

MR. SANFORD: Good morning, your Honor. My name is Josh Sanford. I'm from Little Rock, Arkansas.

I am asking to be on the Plaintiffs' Steering Committee on behalf of consumers. I filed the first case in Arkansas with Arkansas-specific remedies.

My class would be approximately 2400 buyers. There are people here who are obviously more qualified than I am, but I've been lead counsel on over 30 class or collective actions, and I have enough experience to contribute, and there are not very many applicants from the Eighth Circuit.

I think that I am very well qualified to be the attorney from the Eighth Circuit, if the Court will -- will appoint an attorney from the Eighth Circuit. And that's all that I would add in addition to my letter.

Thank you.

THE COURT: Thank you.

MR. SARKO: Good morning, your Honor. My name is Lynn Sarko. I'm the managing partner of Keller Rohrback. I've applied to serve as a lead counsel or a member of the steering committee.

My firm has been retained by over a hundred clients in the case. We filed cases.

What's important is on behalf of Volkswagen owners and those who have financed their cars and leased Porsche -- there's a case before your Honor, I want to correct the record right now in the Northern District is -- which is one of our cases, the Fitzgibbons case against Audi.

We filed the first multi-plaintiff class action in the country on September 20th in California. I had --

THE COURT: So you have an Audi case as well?

MR. SARKO: Audi.

THE COURT: Do you also have a Porsche case?

MR. SARKO: Yes. We have a Porsche case that is in front of you, that's 16-00251.

I'm also, next week, going to Florida to argue that the

Porsche cases do properly -- should be here with the rest of the cases. They are similar.

THE COURT: I won't be there.

MR. SARKO: You won't be there. I hope it's good weather.

A couple of points, your Honor. First, quickly I've -- I will commit to be here. I've cleared my calendar. I do not have other current trials. I will not take current trials during the pendency of this case. I do not have personal lead plaintiff MDL commitments, so I will show up. I will be here. And I think that's important.

I do have a couple other issues. One is I'm lucky. If you look, I am number 23 on the list which is important in a case like this.

THE COURT: How did you do in the lottery?

MR. SARKO: Not very well. But more importantly, I have financial, accounting, and international corporate expertise that I think will be crucial in these cases.

I represent corporations in the U.S. and overseas. I represent sovereign nations. I have a lot of experience, and I think in this case the international finance and tax issues will play an important part in the negotiations.

I've already established a positive working relationship with VW and the other counsel.

Thank you, your Honor.

THE COURT: Thank you.

MS. CABRASER: Good morning, your Honor, Master Mueller, Volkswagen counsel. Elizabeth Cabraser.

Your Honor, thank you for convening the national convention of plaintiffs' advocates.

We are all here for the same reason. We share the dream of seeking justice that not only compensates but restores. This case offers all of us the opportunity and challenge to do that in the manner which your Honor laid out for us this morning. We have our marching orders.

I would very much like to make the team that your Honor selects to lead that march for the consumers to restore the environment, to work with governmental regulators here and abroad to solve a problem which I believe Volkswagen knows, and understands, and is committed to solving. Its very existence depends upon a complete solution to that problem.

My MDL class counsel experience began in 1981. I think I represented my first certified class in 1979. My experience includes fashioning and gaining approval and implementation of settlements that repair and replace, as well as compensate consumers. That's important here. We know that's important. Our collective clients have told us so.

I'm applying to serve in a leadership or committee capacity on behalf of all claim diesel owners and lessees, but in doing so I have also committed to them, and I commit to this Court,

that an important element here is to restore through offset, through repair, through replacement, the environmental damage that has been done unwittingly by these consumers and by the company.

I believe that's a goal that Volkswagen shares. This may be a long or short road. The attorneys come at the end of that road. The consumers come first.

THE COURT: Thank you.

MR. POSWALL: Good morning, your Honor. My name is John Poswall. And -- of the law firm of Poswall, White, & Brelsford. We're from Sacramento, a small law firm recognized by the *"U.S. News and World Reports"* as one of the best law firms in the United States.

I'm appearing -- and I filed a petition yesterday pursuant to your order, for Parker White who, months before this hearing, was required by the International Academy of Trial Attorneys to be in Montreal for site selection for an upcoming event. His spouse also happens to be the incoming president of that organization.

Parker White had a -- has particular experience in many class actions, starting with the Farrell's Ice Cream Parlor crash in Sacramento with Mort Friedman years ago when we were with him.

He's also -- in fact, Elizabeth Cabraser was here — in the Hafferty (phonetic) case, he worked with her for certification

of that case.

Let me say, however, obviously the best lawyers in America, International Academy of Trial Attorneys, recognized as Distinguished Attorney American Board of Trial Advocates, like so many of the other people here, but frankly I kind of feel like I want to go around the room and get autographs from some of these people.

We do not have the level of experience in class actions of somebody like Elizabeth Cabraser or Joe Cotchett. We want to work with them. However, we are an outstanding law firm.

And you mentioned fee applications. You know, one of the things -- this shouldn't be about lawyers, this should be about the clients. We are representing 73 real people that we have filed on behalf of in this matter.

There's something about answering to real clients and not just deciding for a faceless class. And I should, perhaps, take exception a little bit to what your Honor said. I don't believe that we can let fraud be engineered.

So we're prepared to work on preparation for trial, not preparation for fee application.

Thank you very much.

THE COURT: Thank you.

MR. BLOOD: Good morning, your Honor. Timothy Blood from Blood, Hurst & O'Reardon in San Diego.

I have over 20 years of experience practicing consumer

protection law, which is really the most applicable set of laws when it comes to the cases brought by consumers in this case.

I am probably as experienced as anyone in the room with that applicable set of laws and litigating them both at trial -- at the trial level and on appeal.

I also, like so many others here, have extensive MDL experience. I've led MDL's. I've participated in MDL's. But I think what makes this case unique is the number of different types of players.

Primarily the government and regulatory players, as well as the different types of plaintiffs, and of course the state attorney generals, which are going to be in the background, not in this court, but in the various states that they come from.

All of these entities have different goals, have different approaches to litigation, many have legal requirements on what can and cannot be shared with others that they may be litigating against.

I have experience litigating these types of cases in this type of situation against a company that was owned by a German parent, and I worked with the Federal Trade Commission to obtain the largest false advertising settlement in FTC history.

It is that type of experience that I think is important, because -- I also have a reputation I think is well deserved, for working well with other people and bringing other people together. A number of other people do too, but it is absolutely

critical, whether it's discovery, litigating the case, getting ready for trial, and certainly settling where these tensions become most acute, that experience understanding where these different players are coming from and being able to bring everybody together makes me somewhat uniquely qualified to be on the Plaintiffs' Steering Committee.

Thank you.

THE COURT: Thank you.

MR. ZIMMERMAN: Good morning your Honors. My name is Charles Zimmerman.

I stand here with a group -- for a group of people who are an extraordinarily competent, and highly educated, and wonderful people, and wonderful lawyers.

The only thing I would like to impress upon this Court is the one skill that I think I have that perhaps would distinguish me is, I'm extraordinarily creative in what I do.

My career really took a big jump when I was involved in the national tobacco settlement. I was actually at the table negotiating that settlement back in the nineties.

From that point forward, I understand that when people get together and people want to find answers, we can find answers.

I was appointed lead counsel in a number of MDL's. I hope your Honor maybe checked some of them out with Judge Frank, or Judge Davis, or the others, and I think I've done good jobs.

But most recently in Target, in the concussion litigation

VW FOIA, EPA 06/20/2017 2017-FFP_038466

where I'm lead counsel in the National Hockey League case, and where I worked with Chris Seeger in the football case, we've come up with answers to problems that society needed answers for and we did them in record time. And I'd love to be given the opportunity to help in the team.

I don't want to lead this charge, your Honor, but I would like to be part of the team, and I think my creativity perhaps distinguishes me and gives me some opportunity to contribute, and for that I appreciate your time.

Thank you.

THE COURT: Thank you.

MS. ANELLO: Good morning, your Honors. Virginia Anello. Thank you for providing me with the opportunity to speak today.

I am seeking a position as a member of the Plaintiffs' Steering Committee. My letter to the Court highlights my qualifications and experience. I would just like to highlight a couple of areas of the letter.

First, I believe that the key to a successful MDL is cooperation and coordination among counsel. And not only among plaintiffs' counsel and the Plaintiffs' Steering Committee, but also with defense counsel.

I also support cooperation and coordination with the Court, and in this case Mr. Mueller, as well, as was discussed at the beginning of the conference.

I have a reputation for -- I submit that I have a reputation in the community of working well with others to achieve this cooperation and coordination, and I think this is evidenced by the appointments to Plaintiffs' Steering Committee or subcommittees of Plaintiffs' Steering Committees.

Second, as the Court knows this litigation involves primarily German defendants, and there are legal issues that do surround German defendants and bringing suit against them.

Our firm was lead counsel in three MDL's that did involve German defendants, and I addressed and gained some experience regarding these legal issues.

We were able to coordinate with the defendants regarding these issues to reach a mutually beneficial resolution, and I believe I could provide this experience to this MDL.

Lastly, I would just like to say, I'm ready and willing to do the work that's necessary to work as a cohesive team and to provide the necessary resources to move the MDL forward and ideally achieve a successful outcome for our clients and meet the needs of the Court.

Thank you.

THE COURT: Thank you.

MS. KRAFT: Thank you, your Honor. My name is Kristine Kraft. I'm a partner with the law firm of Schlichter, Bogard & Denton in St. Louis.

I can be an asset to this litigation because of my

broad-based experience in MDL work, as well as the fact that I have a very strong work ethic and commitment to the projects I handle. I've been complimented many times in the past in that regard and as a result, I work cooperatively with other lawyers and should become a valued member of the team.

I have been involved in two very recent MDL's, the Pradaxa and Yaz litigation in which my firm served as lead counsel and was involved in navigating through some of the very complex issues involving German defendants and the privacy laws in achieving depositions and documents in that regard.

I've worked very hard throughout the practice of MDL work, starting with the committee work, discovery, the expert committees in the Ortho Evra litigation, and was soon recommended by lead counsel as someone who was instrumental to the team, and a part of deposition preparation of core witnesses, and then being singled out to work with -- as a point person with another lawyer on development of three expert witnesses.

I've also served as a PSC member working with lead counsel in coordinating and doing the detail work in connection with organizing deposition preparation. I've been very involved in deposition preparation.

I really like the hands-on work and diving into the details of the case. And I have also served as co-lead counsel and liaison counsel in a dual role in the NuvaRing litigation, as

well as strategizing in connection with that litigation, working very hands on and participating in the global resolution of that case, and the point person involved with respect to administrating the settlement.

Thank you for your time.

THE COURT: Thank you.

MR. SHKOLNIK: Good morning, your Honors, Mr. Mueller. Hunter Shkolnik from Napoli Shkolnik in New York.

It's ironic that I follow Ms. Kraft. We were co-leads in the NuvaRing litigation. It's the luck of the draw I guess.

Currently I am co-lead counsel in one active case, but it's up on appeal. It's Incretin Mimetics based down in the Southern District of California, Judge Battaglia. I worked that case aggressively with the team as co-lead counsel.

I've spent more time in the West Coast than my family ever sees me on the East Coast because of that. That case is now in what I would call a remission stage, while it's up in the appellate levels. My time will be devoted to this case.

I look forward, if I'm appointed to the PSC, to work day-to-day. In In re: Toyota I was appointed to the wrongful death steering committees.

Although I've been lead counsel in many cases, or many other litigations, there I was a line worker. I took that responsibility. I felt it was important.

I joined counsel as part of the team that went over to Japan

and took the deposition of the key source code witnesses over there. It -- it didn't make a difference where I wasn't lead counsel, if it was assigned to me, the job, I went and I did it, and I did the best I could, and my firm's resources, which are ample, were behind me all the way and behind the case.

I work well with others, your Honor. I would appreciate the opportunity to do that here.

One last point before I sit down that I want to highlight, and it really isn't mentioned in my statement, is I was co-lead counsel in the In re: Phospho-Soda litigation that was out in the Northern District of Ohio. That was a company that was going to go bankrupt.

On the first day like this, the judge said, this is a liability case. Everyone concedes it. The defendant knew it was a liability case. From that moment on we spent the next year doing everything we could to save the company, compensate all the victims, and we did that.

Thank you very much.

THE COURT: Next group. Joseph Rice, Bruce Newman, Adam Levitt, David Casey, Todd Smith, David Boies, Eric Gibbs, Paul Keller -- Geller. I'm sorry, Paul Geller.

MR. REICH: Your Honor, I didn't hear the first name you called.

THE COURT: Joseph Rice.

MR. REICH: Oh Rice, not Reich. Okay. Thank you.

MR. RICE: Good morning, your Honor. Joe Rice with Motley Rice from Charleston, South Carolina.

Your Honor, I stand here seeking the position on the Plaintiffs' Steering Committee, and I have filed with the Court in a letter my bio, and my references so-to-speak.

However, I stand before you today to ask the Court to consider a process that might work very well in this case, and that is the appointment of co-leads, two or three, but one co-lead dedicated to resolution.

I had the experience and the opportunity to represent the states in the tobacco litigation, and I valued greatly the litigation -- the work being done in the courtroom, my partner Ron Motley was heavily involved, many other attorneys, many of them in this room, but having someone focused on resolution served that case very well, and we were successful in reaching a national settlement that was accepted by all states.

That same process has worked in the BP oil spill case where I led the negotiations with Calvin Fayard down with BP, and we were successful in negotiating a class action, while the litigation was actively proceeding, separating resolution and litigation.

I believe that this process allows us to have both sides focused on, and move the case efficiently forward. If the Court were to decide to follow a model like this, then I would ask to be considered as co-lead for resolution.

Thank you, your Honor.

THE COURT: Thank you, Mr. Rice.

MR. LEVITT: Good morning, your Honor. Adam Levitt from Grant & Eisenhofer in Chicago, Illinois.

I occasionally stutter when I speak. If I'm not clear, let me know, I'll go right back over it.

I'm seeking appointment as lead counsel here, your Honor. My credentials are set forth in my application. I satisfy all of the requirements in PTO number 2. I've led or I am leading somewhere between 15 and 20 MDL cases.

I have extensive experience both litigating and resolving large MDL and automotive cases.

I've litigated cases against a number of German companies, including Bayer AG and Porsche, resolving cases against them in excess of $1 billion.

I have extensive and broad support for my application, confirming my ability to work with pretty much everybody in this room, your Honor. Either in the past or right now I've worked with all of them. And I intend to keep working with them. I build teams, my teams win.

One thing I can say that separates me from anybody else in this room as well, is that as your Honor probably saw on Tuesday, we were the first and only private counsel retained by a State AG to file an action on behalf of the state. We sued on behalf of the State of --

VW FOIA, EPA 06/20/2017 2017-FFP_038473

THE COURT: Where did you --

MR. LEVITT: -- New Mexico -- in New Mexico, in Santa Fe.

THE COURT: Do you have a view yet as to whether or not the State AG should be part of this MDL?

MR. LEVITT: I think that the resolution of the problems caused by the Volkswagen defendants will require a broad settlement. Whether they should be statewide or whether it should be in the MDL is an open question.

When a state -- when a State AG has the ability to file a case in his or her home court, and that's what he or she wants to do, my client wanted to file in state court, we filed in state court.

That being said, your Honor, the coordination between that case and what's happening here, and my ability to handle them both, really sets me apart from anybody else in this room, your Honor.

Thank you very much.

THE COURT: Thank you, Mr. Levitt.

MR. CASEY: Judge Breyer, Judge Corley, I'm Dave Casey.

The most defining moment of my career, your Honor, was following 9/11. I was vice president of ATLA. I was one of the people who came up with the idea of the Victims' Compensation Fund. We wanted families to be able to have closure, and we wanted it to be done quickly.

I was president in June of 2004 when the program came to a complete conclusion and all the funds were paid.

THE COURT: You worked with Mr. Fineberg?

MR. CASEY: I'm sorry?

THE COURT: You worked with Mr. Fineberg?

MR. CASEY: Yes, your Honor. Yes, your Honor. And when we did that, we knew that we were setting a precedent that had never been set, because we were replacing the current tort system with a new approach. We did not hesitate. We thought it would be precedential, it has been.

Most significant was, we got one thousand lawyers to volunteer, pro bono, across the country. It was the most successful pro bono program in history. It took leadership, it took building consensus. It took getting the job done.

I will tell you from the time we proposed the idea, it took 12 days through Congress to get the President to sign the bill. I think that's a record, your Honor.

THE COURT: I'm sure that's a record.

MR. CASEY: And, your Honor, I -- I had the opportunity in the past, I represented Lieutenant Governor Gray Davis in the tobacco litigation when the State of California declined to go forward. And I had the experience with some lawyers here of spending 26 years in Exxon Valdez, I hope that does not repeat itself with this Court, but we learned never to give up and to persevere.

Finally, your Honor, I had the opportunity to represent some mom and pop dealers in the Honda industry in California, in the most massive bribery scheme against Honda -- against any automotive dealer in the history of California. Honda employees were paid bribes by dealers to reallocate the Honda Accord. It resulted in criminal convictions, and we got fair and just settlement for our clients.

Thank you, your Honors.

THE COURT: Thank you.

MR. SMITH: Good morning, your Honor. Todd Smith from Power, Rogers & Smith in Chicago.

At the outset, just let me say my purpose this morning is simply to commit to this Court personally, my full commitment to the Court, as well as the American consumers.

My thought in coming here this morning, and giving some thought to what you might consider the characteristics, the capabilities that lawyers should have to lead this PSC, and be part of the PSC is leadership skills, the ability to handle trial work of this type, and generally, evidence of respect from one's -- for one's integrity, one's capabilities that is seen by the courts that most commonly -- I've been to other courts outside of our own state of Illinois, but I think that the courts there, and the ones I've listed for this Court would be able to comment on Todd Smith and his abilities.

Consideration for geographical diversity. The Court

VW FOIA, EPA 06/20/2017 2017-FFP_038476

mentioned that earlier this morning. Chicago, perhaps, is obvious in terms of its geographic diversity. It provides us the central point within the country, easy access for all aspects that might involve the litigation in this case, whether it be Europe, whether it be Detroit, whether it be DC, whether it be the west coast.

Competence as a trial lawyer. For 40 years I've tried cases. Over a hundred jury trials and judgments beyond that. Members of various organizations that one might indicate as demonstrating competence as a trial lawyer.

Respect for one's ability to practice in the area. In the listing of cases I provided to the Court, I think you will see a number of judges from our Illinois Supreme Court that are listed and given the contact information. I didn't hear the Court indicate -- I haven't heard that those have been contacted, so I don't know what that means exactly at this point, but in any event, I think that the judges will comment significantly on my abilities, your Honor.

Thank you very much.

THE COURT: Thank you.

MR. NEWMAN: May it please the Court, counsel. Bruce Newman on behalf of Plaintiff Drew Mizak, et al.

Four reasons why I believe my application to be part of the Plaintiffs' Steering Committee should be approved in this case.

First is geographic diversity. I'm the only one you'll hear

from today from Connecticut. There are three applicants from New England, and there are thousands of affected owners -- lessees in that region that need representation in the northeast.

Second, I am a consensus builder within plaintiffs' classes. I've learned to listen to the consumers. I've learned to listen to consumers' need. I hear them.

I believe your Honor said in the December 22nd conference, that the purchase of a vehicle is probably the single largest purchase most -- many families will make. Many individuals will make. So it's important for these affected vehicle owners and lessees to get the kind of remedy that will speak to the fact that -- here it is again -- one of their biggest purchases.

Third, I'm a trial attorney. I've tried approximately two dozen cases to verdict. I've tried them here in California, I've tried them in New York. I've tried them in Connecticut.

I also have MDL experience, so I recognize the importance of Rule 23, and also at the same time, the importance of all different kinds of discovery; formal, informal, and confirmatory.

Lastly, I will commit myself fully to this endeavor to see that the plaintiffs' classes get the right remedy through whatever fix is going to be in place, and through whatever fix may not be in place.

Thank you.

VW FOIA, EPA 06/20/2017 2017-FFP_038478

THE COURT: Thank you.

MR. GIBBS: Good morning, your Honors. Eric Gibbs from Girard Gibbs.

I'd like to start by elaborating on the Hyundai fuel economy MDL case that I reference in our papers. There at the initial case management conference, Judge George Wu was confronted with a defendant that was publicly promising to resolve that dispute, parallel government investigations, he was presented with a proposed class settlement at the initial conference. There were warring plaintiffs' factions with competing interests, and all of this was happening in the context of what promised to be a nine-figure transaction for the class.

I think Judge Wu recognized he needed to get his arms around that case and manage it. He selected me and appointed me to fulfill that role in that case.

Thereafter, I represented the interests of dozens of law firms around the country. We implemented a -- I negotiated and helped implement and managed a discovery plan that proceeded throughout the United States and in Korea. We had numerous hearings. We -- I was able to negotiate internal disputes and resolve those. Many of those never made it before the Court. We ultimately resolved that case.

The settlement went through and 42 of the firms that I was acting on behalf of stepped forward and either supported the settlement or withdrew any objection to it. So I think that's a

good example of my ability to build consensus.

I have served as lead counsel in MDL's against Mercedes, GM, Ford, and Honda.

I've served in a leadership role against at least six other major auto manufacturers. I'm prepared to do that here, and I'd appreciate the Court's appointment of my application.

Thank you.

THE COURT: Thank you.

MR. GELLER: Good morning, Judge. Paul Geller. I run the Florida office of Robbins Geller. We have ten offices throughout the country. We're the largest class action firm in the nation.

We've talked about a quick resolution and the immediacy. I agree with your Honor on that, but it's important to note that quick resolution cannot mean a cheap or a bargain basement settlement for consumers. And I'm proud that my firm has achieved the largest recoveries for classes that we've been privileged to represent in almost every genre of class action, from food labeling cases to the largest anti-trust case, the largest fraud settlement, the largest fraud trial verdict as well.

As your Honor alluded to earlier, the ability to try a class action to verdict helps drive successful settlements.

The other thing that helps drive a settlement is a relationship with defense counsel, the ability to talk, and to

trust, and to respect each other. I know these lawyers. I know Jeff Chase. I know Bob Giuffra, Michael Gallub. I think there's a level of mutual trust and respect, that we can have a dialogue, certainly with the assistance of Magistrate Judge Corley and Director Mueller, and I'd be honored to be a part of that.

I want to talk about one case that involves Magistrate Judge Corley. It's the Asus consumer computer case. It was before Judge Alsup. My firm was one of two co-lead counsel. We resolved that case and got a hundred percent of relief that we sought for the class, and it was in large part because of our efforts, but also because of the efforts of Magistrate Judge Corley who mediated that case, and had several in-person mediation sessions, as well as phone calls, and was instrumental.

I'd be honored to work again with Magistrate Judge Corley. My last sentence -- excuse me -- I want to say, today is my son's birthday. He is in Florida.

THE COURT: You should be in Florida.

MR. GELLER: No, I shouldn't. The point, if I can say this, I called him at 3:00 in the morning to hit him before he went to school, and I apologized for not being there to give him a hug this morning, and he said you're where you need to be. This is the most important case you ever worked on, and he's right.

THE COURT: It's not more important than your son.

MR. GELLER: Thank you.

THE COURT: Mr. Boies.

MR. BOIES: May it please the Court. David Boies. And in the interest of geographic diversity, I can say I'm from New York. That's not usually how I introduce myself when I'm outside of New York.

I know that Mr. Geller's son is 17 years old, and that is an additional reason for him not to be away on his birthday.

This is a case in which you have many, many talented lawyers here, and I think the class is going to be well served whoever you select. I do think that I have some added value, without taking anything away from the desire of the defendants, for quick settlement. I think they could be encouraged to have a speedy just result if they are confronted with somebody that they know tries cases.

We have an experience in the record of trying cases, successful cases fast. We also have a record of settling cases cooperatively, for very large amounts, in a very fair way so that the plaintiffs are compensated.

But most important, this is a case that is important, not only to the country, not only to consumers, not only to the environment, it's important to the judicial system. It's important to the plaintiffs' bar. It's important that we show the world that we can handle a case like this efficiently,

fairly, justly by taking into account the conflicting policies that we're going to have to confront. I think that is something we have experience in.

Thank you, your Honor.

THE COURT: Thank you.

Carl Kravitz, Jack Lee, Daniel -- I guess it's Charest, Sarah Engel, Shannon Conway, Daniel Miles, Arthur Murray, Dennis Reich, John Weston, Jordan Lurie.

MR. KRAVITZ: Good morning, your Honor. My name is Carl Kravitz. I'm the chairman of the litigation department at Zuckerman Spaeder firm in Washington, D.C. Perhaps that's geographic diversity.

We are, I think, widely recognized as one of the top litigation boutiques in the country. I cannot say that I have no other cases, but I am personally committed to be here and to devote my time to the case.

I am neither just a plaintiffs' lawyer or a defendants' lawyer, I represent both, and my clients and I can tell you that I have worked successfully, both with and against, many of the applicants here.

I just wanted to highlight four aspects of my experience. The first is that I and my firm specialize in white collar crime defense, and matters like this involving parallel civil regulatory and criminal proceedings. I think that distinguishes my application from at least many others.

I also think that having someone in the room who has advised a company or individual facing problems like this would be invaluable in bringing this to a resolution. And I would suggest that perhaps you consider my application to bring that experience to the PSC.

The second thing is that I have experience with technical matters, car defects and other things, even satellite thruster engines, and I'm very interested and comfortable with technical matters.

I agree with a comment that was made earlier, that I think financial expertise is going to be important here. I have experience litigating cases for victims to obtain access to assets to pay their claims.

And the last thing is, I've settled cases for plaintiffs and defendants, including on behalf of the lending insurance market.

Thank you.

THE COURT: Thank you.

MR. CHAREST: If it please the Court, your Honor, Daniel Charest -- sorry for that handwriting -- from Burns and Charest.

I'm here on behalf of the application of my partner, Warren Burns, for the Plaintiffs' Steering Committee.

Unfortunately Mr. Burns couldn't be here today because he's at a final settlement hearing in New York City for a nationwide class that was set and he's been handling the last four years.

He was named co-lead counsel in that case and has made the commitment to be the first one if he's appointed to this.

On the issue of geographic diversity, the Court mentioned, aside from California, Texas is number one in the country for new vehicle sales. We are by far the firm with the highest support amongst all of our peers --

THE COURT: Texas has approximately half the number of vehicles of California, but you're from Texas, sir?

MR. CHAREST: Yes, sir. Dallas, Texas.

THE COURT: It has half -- but it has probably twice that -- close to twice that of the number of the other states.

MR. CHAREST: Yes, sir. You have California, Texas, and then sort of everybody else.

THE COURT: Florida and --

MR. CHAREST: Florida is also a strong third. That's correct, sir. But no other Texas applicant has the support that Mr. Burns has for his application. We have 36 firms that support his application, including some candidates for leadership, Cotchett Pitre, Lieff Cabraser, Hausfeld, Cohen Milstein, and many others that are all listed in our application. All of them said they want Warren Burns on their team, and he should be there.

Thank you, your Honor.

THE COURT: Thank you. Mr. Lee.

MR. LEE: Good morning, your Honor. Jack Lee from

Minami Tamaki.

You won't see me up here applying for the many leadership positions, but I think I add value here.

We represent 24 plaintiffs in three different states, and we are seeking a liaison position here. We did the same -- we took the same role, when Judge Illston appointed us for a leadership position in LCD, and that turned out to be one of the largest class action settlements in history.

We can do that here, and there are many parallels to this litigation. Number one, the parallel federal prosecutions, there's 115 some-odd law firms that we liaisoned with.

Finally, I'd like to point out that we are one of the only minority law firms that do class actions. We're one of the longest lived and biggest minority law firms.

Thank you, your Honor. I would be honored to accept an appointment, and I believe that you can't go wrong. You have an embarrassment of riches here in terms of whom you appoint, but I would personally commit to spend all my time to litigate this case.

Thank you.

THE COURT: Thank you.

MS. CLASBY ENGLE: Good morning, your Honor. Magistrate Judge Corley. My name is Sarah Clasby Engle. I'm with the law firm of Harke, Clasby & Bushman in Miami, Florida.

I'm seeking a position on the PSC on behalf of purchasers of

Volkswagens. While there are clearly so many qualified -- exceptionally qualified applicants here, I'd like to share a few details of my background that I think would be a help to the PSC.

First, in addition to being a founder of a plaintiff's class action firm, about 10 years ago I became certified as a mediator, because I believe in that process so much.

As a mediator I've helped hundreds of parties with divergent interests reach a common ground.

I think that experience has also helped me to evaluate cases, as we are constantly looking at potential outcomes in litigation versus settlement scenarios that are informed by creative problem solving, your Honor.

Second, for many years at the beginning of my career I worked at one of Florida's largest defense firms. In that capacity, of course I represented large defendants in product liability cases, dealt with the thousands of employees and millions of documents, and I think that experience will help run discovery efficiently and effectively, to give a good perspective to the plaintiffs' PSC.

Third, I started Harke, Clasby & Bushman 13 years ago with my partner Lance Harke, and we have been involved in numerous successful MDL's and class actions that are all set forth in my application, including a class action against a defective auto -- against BMW, your Honor.

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We take pride in working well with our co-counsel, and in contributing financially to these cases, and I'm grateful that that is reflected by the support that I have with my co-counsel around the country, your Honor.

Finally, I am from Miami, Florida, a member of the Florida bar. Florida is typically the third largest state of purchases for automobiles.

Thank you, your Honor.

THE COURT: Thank you.

MS. CONWAY: Good morning, your Honors. I'm Shannon Conway. I'm with the law firm of Talcott Franklin in Dallas, Texas.

I'm applying for a position on the Plaintiffs' Steering Committee. I thought that I had something unique until I heard the last couple of people talk, but I too spent much of my beginnings of my career, my first 15 years, representing corporate defendants in large governmental investigations, leading up large discovery efforts, brief commissions, oral arguments in courts around the country, and now I'm on the plaintiffs' side, and I do think that having represented corporate defendants does bring a unique perspective that would help the efficiency of this litigation.

I look forward to working with anybody and everybody if I am given the opportunity to do so. And I thank you all for your time.

THE COURT: Thank you.

MR. REICH: Good morning, your Honors. I'm Dennis Reich, Reich & Binstock of Houston, Texas.

I believe that I have a background that is unique to this type of litigation. I am one of the few trial lawyers in this country who's actually tried diesel exhaust personal injury cases to verdict.

I have also traveled throughout the country and have exposed -- have been exposed to workers that came into contact with diesel exhaust.

Further, I authored an article and presented it at nationally sponsored symposiums, about the carcinogenicity of diesel exhaust.

I think this background is very crucial, not only to the personal health interest of the plaintiffs in this litigation, but to the governmental interests as well.

Coming from Houston, Texas I live in the most ozone contaminated air shed in the country, outside of California.

The case is of extreme public interest to the people of Houston and to the people of Texas. The county in which Houston is located filed the first governmental claim against Volkswagen in connection with the utilization of these cheat devices.

So from a geographical diversity standpoint, I think it would be helpful to have someone of my background and location on the committee.

Additionally, I'm a hands-on guy. I try cases. I've been doing cases with toxicological and public health issues, going back to the MGM fire litigation in the early eighties, when we were looking at the toxicological products of the resin found in slot machines, and the polyurethane materials on the furnishings.

I have held a variety of lead counsel positions, and they're all outlined in my application.

Thank you, your Honor.

THE COURT: Thank you.

MR. MILES: Good morning, your Honor. Dee Miles from the Beasley Allen law firm in Montgomery, Alabama.

Your Honor, first of all I come to you with a little different position request and that is --

THE COURT: Dealers.

MR. MILES: And that is for the dealers. Yes, sir. As a co-lead, and I want to give an explanation as to why a co-lead is the reason I'm asking for that position for dealerships.

Mr. Murray and I, once we had filed these cases, we got together and gathered all of the dealer cases that were throughout the United States, organized, and had several meetings about the things that we need to do for the dealers that are different from the consumers.

So from that perspective we offer some leadership.

Secondly, I think you need someone who can try cases, and

VW FOIA, EPA 06/20/2017 2017-FFP_038490

you have my submission, no sense me standing up here telling you what all I've done, but I've been fortunate in the trial courtroom, and had some good results, and I'm grateful for that.

The third thing I think you need is someone who can participate in the settlement. I was in the Toyota case. The initial settlement negotiations started with this person standing here, Mr. Berman and I and the rest -- Ms. Cabraser and I corralled all of the co-leads, and we had several meetings. And Mr. Berman ultimately did a great job settling that case. And Ms. Cabraser and I moved to the product liability side and were the architects of that ISP with Judge Selna.

And that is still ongoing today not only in the state court, also in the federal court, and we were involved in both of those.

So I offer you, from the south, some good relationship and valuable experience, and would serve in any capacity of which you would like for me to serve.

Thank you, your Honor.

THE COURT: Thank you.

MR. MURRAY: Your Honor, Arthur Murray. I have also applied to be co-lead of the dealer track. I -- my CV speaks for itself. I think I'm qualified.

There are a lot of qualified applicants so the question is, what makes me stand out? Why you need me?

I think the first answer is, your Honor, I represent

dealers. It's who I represent. That's the interest that I care about. That's the voice --

THE COURT: Do you have a sense of how many dealers are going to be involved in this?

When you say "dealers," you're talking about -- are you -- you're talking about independent dealers? You're not talking about authorized dealers --

MR. MURRAY: Yes. Let's clarify. Yes, your Honor. I have not seen any of the retailer -- VW redirect sale dealers.

We represent the independent automobile dealers. There are some Lanham Act dealers which are --

THE COURT: I understand that.

MR. MURRAY: We enjoy the unanimous support of the independent automobile dealer cases.

THE COURT: Do you have a sense of how many we're talking about?

MR. MURRAY: I honestly don't, your Honor. I believe more, certainly, are coming. We have talked to a number of them. I think that, again, having a voice in this leadership will incentivize them to be a part of it, and to be a part of a process.

THE COURT: Establish an MDL and they will come.

MR. MURRAY: I think that's a --

THE COURT: I've heard that before.

MR. MURRAY: I think your Honor did just that.

With respect to myself. I'd just let you know in terms of personal commitment, I'm from Louisiana. I have a firm in Louisiana, but I live in Healdsburg. I'm an hour north of here -- a little over an hour.

I will be here within an hour if you call me. This will be what I eat, sleep, drink, live, VW dealers, this will be my life until it's done.

So I would very much like the opportunity to do that. I'll also point out that we do -- while we have asked for a separate dealer track, and we are working cooperatively with other dealer attorneys, we have the support of a number of consumer attorneys -- Frank Pitre, Elizabeth Cabraser, and a number of others.

So I think we can work cooperatively, but I do think we need that separate voice. Whether it's a separate track altogether, which I think your Honor should consider, or whether it's a voice among the leadership, I think we should start.

Thank you, your Honor.

THE COURT: Thank you.

MR. LURIE: Good morning, your Honor. Jordan Lurie of Capstone Law, and I'm applying for the position of plaintiffs' coordinating counsel.

The Court did not request application for this position, but I'd like to explain why this position is important, and why I should be appointed to it.

Unlike other cases, as this Court has noted, this case has a lot of moving parts between the federal cases, the state court cases, the state's attorneys, EPA, CARB, DOJ, Settlement Master Mueller, and Claims Administrator Fineberg. And lead counsel, no matter how talented they are, should not have to focus on coordinating communications between all of these various entities.

As coordinating counsel, I would serve to facilitate, and as a clearing house, to coordinate the flow of information so that all the various entities have the information they need in order to resolve this case.

The parties should be communicating with each other not passed each other, so that meaningful settlement dialogue can occur.

I'm uniquely qualified for this role for the reasons set forth in my application, but let me highlight a few.

First, I have successfully litigated three consumer car cases against Volkswagen, and I have a very close working relationship with defense counsel. Herzfeld & Rubin's California office is located directly across the street from my office, which means I will have ready access to resolve issues face-to-face.

Second, I have developed a mixed practice in consumer car cases and fraud cases, involving manufacturers' failures to disclose.

I've litigated cases against all the major manufacturers and several major cases in the last few years.

Finally, I settled the case in which chief judge -- then Chief Judge Alex Kozinski was an objector --

THE COURT: Yes. That was a rather remarkable one.

MR. LURIE: That would be a great story, your Honor. I'd love to take you to lunch and tell you about it.

THE COURT: I don't have a -- I will not be an objector.

MR. LURIE: Thank you, your Honor. I appreciate that.

THE COURT: I'm thinking about a dealership at some point.

MR. LURIE: My success in that case, your Honor, demonstrates the tenacity and perspicacity that I would bring to resolving these cases.

Thank you.

THE COURT: Thank you.

MR. WESTON: May it please the Court. John Weston of Sacks, Weston, Diamond in Philadelphia. We have one of the Lanham Act cases.

I'm not going to rehash my very modest qualifications. The Court already has them in the application, and I'd be embarrassed in front of this crowd anyway, but I did want to take the opportunity to allow the Court to connect a face with a name, and to urge the Court to make sure that there is separate

representation for the dealer track on the committee.

Thank you.

THE COURT: Thank you very much.

Robert Starr, Jayne Conroy, Jonathan Michaels, Allen Press, Tom Girardi, Allan Kanner, Ken McClain, Roland Tellis, John Quinn, Kimberly Kralowec -- I'm sorry, I mispronounced it.

MR. STARR: Good morning, your Honor. My name is Robert Starr.

I represent a dealership, and I just wanted to tell the Court that we support the idea of having a separate dealer track and pursuing those cases.

We have the dealerships, as has been said, the dealership attorneys have pretty much coordinated, and are working cooperatively together, and we would like the opportunity to move those cases on a separate track, and be as efficient as possible, in order to get those cases moving along.

Thank you.

THE COURT: Thank you very much.

MS. CONROY: Good morning. Jayne Conroy, Simmons, Hanly, Conroy in New York and St. Louis.

I represent non-VW dealerships, dealerships who sold competing diesel models, with Lanham Act claims.

Many years ago, your Honor, you appointed me as the state federal liaison in the Bextra/Celebrex case, that was my very first official MDL appointment. By the time that case resolved,

you appointed me to the Plaintiffs' Steering Committee, to be on the trial team and the fee committee.

Since that time I've served on the leadership in many, many MDL's, notably the economic loss committee appointed by Judge Selna.

I have the background to be here, your Honor. Frankly I'm now too old to be humble about my experience. I now lead one of the largest plaintiff firms in the country, which I think is proof that I can get along with others.

We have the intellectual might and the financial resources to be here. The non-VW dealerships need a voice in leadership in this team -- in this case. Someone like myself who knows how to navigate a single case, that has several legal theories, damage models, someone who knows how to build a case with depositions and experts all the way to trial. Someone who knows how to execute a sophisticated settlement, and someone who can work as a team.

I know how to be part of the team, and I would be honored to be back here in this Court.

Thank you.

THE COURT: Thank you.

MR. KANNER: Good morning, your Honor. Allan Kanner from New Orleans.

First, I just want to thank the Court. I know and have worked with a lot of the lawyers in this courtroom, but I don't

know everybody, and I view today, not so much as an opportunity to tell you about myself -- we submitted a letter, a resume you've got all of that, I won't add to it, but I do appreciate the opportunity to get to know people that I hope to work with much better, and I think this is a very important exercise in that regard.

A lot of people have a lot of skills and strength that perhaps I didn't know about before today, and I think we'll be able to utilize all of that, and I have some suggestions for the Court if I might.

I think -- you raised the question about the fix early on. And a number of lawyers in their submittals have talked about their product defect experience. This is not a product defect case. This is an intentional act. Okay?

Volkswagen is not turning around and suing somebody because the product was defective. It worked perfectly. It was a defeat device. It worked perfectly. And Volkswagen has done it before in the seventies and the nineties, and they've gotten caught before.

This is more like an intentional fraud case. I think early on one of the things I'd like to do, if appointed, is to meet with Mr. Mueller, and I think we should talk about this issue of fixes. I don't believe that you can do a -- and I don't -- I believe the experts will show that you can't fix this car in a way that consumers would find in any way acceptable.

If that's true, I think that has a big significance for the conduct of settlement negotiations.

The second suggestion I wanted to make to your Honor, was that early on, we tried to develop a plan for an early trial -- early trials of this, either as a mini-trial for settlement purposes, or as a test case early on, because what that will do will ensure that we get the best possible settlement, as early as possible, but I think we need to cut through some of these science issues, whether we do it in front of Mr. Mueller or maybe stay with the Court is -- can still be discussed down the road, but --

THE COURT: I should advise the parties: Mr. Mueller, while he will be completely involved in the settlement aspects of the case, he is not being appointed for an adjudicatory purpose.

And the reason -- the reason that he's not is because I think if he were, it would be a special master under the Federal Rules, but the reason he's not is because I want people to be able to go to him and be absolutely candid discussing whatever the merits and the lack of merits may be to a particular position. And that's -- that's why this type of mechanism is put into place.

So whoever ultimately goes onto the committees and deals with the settlement master, that's the approach -- that's the approach that I want to see with the direction.

MR. KANNER: I understand that, and what I was suggesting is not inconsistent with that.

THE COURT: I know that. I just wanted to add that.

MR. KANNER: Okay. Thank you very much, your Honor.

THE COURT: Thank you.

MR. McCLAIN: Good morning, your Honor. Ken McClain. I'm from Independence, Missouri.

I'm a trial lawyer there, and have class actions in Missouri and Iowa, so I offer great regional diversity. And we have been approved specifically by the Iowa Attorney General to pursue a consumer class action on behalf of the citizens of Iowa.

I think I'm unique in that regard in the group in front of you. I highlighted a few issues on my resume in the letter that I sent in regard to some significant experience.

I was brought into the Blitz exploding gas can litigation after it had been pending in the bankruptcy court for some 18 months, and served as lead negotiator on behalf of all the lawyers that had been unable to move forward with any offers at all, and resolved that case very quickly, a very favorable settlement that achieved more money than had ever been achieved in private litigation. We had no objectors among hundreds of claimants in that case, which was significant.

But also, and not to disparage anyone in this room, I want to bring the Court to a less successful experience, in a similar recently completed MDL. I represent a group of Kansas City

Chiefs who are significantly injured, and we have unique state law claims that we brought that we are able to bring in Missouri that were not able to be brought in any other case, but before the remand motion could be ruled upon, we had to make a decision whether to opt out of the class.

I sent all my people to Boston to be evaluated -- I think I'm the only lawyer in the country that did that -- and nobody qualified for any money.

Now, I want to be certain that whatever we work out here, if anything is worked out, is not only on its face, and apparently beneficial, but actually beneficial to the people that we're here to represent, and I offer that to the Court.

Thank you.

THE COURT: Thank you very much.

MR. TELLIS: Good morning, your Honor, Mr. Mueller. My name is Roland Tellis, with the law firm of Baron & Budd.

I'd like to take my time here today to emphasize an aspect of my application that I think makes me uniquely qualified. You haven't heard that this morning.

Your Honor, this case is indeed unusual, but the subject matter is not unusual to my law firm. I have benefitted greatly over the past three months from the lessons that my firm learned in representing three Bay Area environmental nonprofit organizations in litigation involving diesel emissions from school busses, and a settlement was reached in that case --

THE COURT: I'm sorry. Involving what?

MR. TELLIS: Diesel emissions from school busses.

A settlement was reached in that case. It was multi-faceted, part of which involved retrofitting these busses with diesel emission devices that were approved by the California Air Resources Board.

And there were competing interests in that case, the interest of the school kids, the environment, and the school bus operator, and our experts were able to help us achieve that balance.

Those same experts have been working with me now for the past three months to understand the complexity of this problem. The scheme was simple, but the fix was not, your Honor.

There are vehicles that have the so-called DeNOx technology, there are others that have the so-called selective catalytic reduction technology, and there will not be a one-size-fits-all fix.

In fact, I believe there will be some vehicles that cannot be fixed, in the sense that bringing them into environmental compliance and performance, and I believe those are some of the subsets that counsel indicated may need to be brought back, but our experience in this regard in working with the experts will assist Mr. Mueller and our colleagues in understanding this problem.

Should this case take a different turn and we have to go

through class certification and trial, my application details the leadership roles that I've played, and my experience in that regard, including as a member of the Plaintiffs' Steering Committee in the Takata airbag case, and co-leading a case in this courthouse against Ford Motor Company involving millions of vehicles.

I assure the Court that I did not apply for this position without understanding the time and resources it will take, and I commit that I will devote the time and resources, making this matter my highest priority.

THE COURT: Thank you.

MR. QUINN: Good morning, your Honor. My name is John Quinn.

I would like to second the comments that have been made about some others, about the importance of trial lawyers, and being able to have a credible threat that the case can be taken to trial.

At this point, I submit we don't know what Volkswagen's ultimate position is going to be on liability, especially as to some of the intentional tort claims that Mr. Kanner referred to.

We've heard statements like, it's been reported in the press it was a technical violation, it was a misunderstanding.

I don't think we know what their ultimate position is going to be. We don't know what their ultimate position is going to be as to damages.

The way to maximize recovery in this case is to have a credible threat, you're prepared to take the case to trial.

Your Honor, our firm has nine -- eight nine-figure verdicts, two of which I personally have achieved, once against a German company Bertelsmann. I personally have obtained a billion dollar settlement from Volkswagen.

When this case -- when this scandal surfaced, "*Der Spiegel*" called me and somehow he spoke to me, was I going to get involved? At that position, we weren't sure. Somehow they came up with a picture of me from the internet and so my picture was in "*Der Spiegel.*"

We have earned the respect of the German business communities.

Your Honor, our firm has obtained some $40 billion in settlements, some $20 billion in settlements for plaintiffs over the last two years, from some of the most sophisticated companies in the world, represented by the best counsel.

We have an office of 27 lawyers in Germany, three offices actually. It's predictable that they're going to rely on German data privacy rules. There's already some reports that they're withholding emails from state attorneys general.

There's a decision of the European court of justice which recently ruled, apparently, that the United States does not have adequate levels of protection for privacy, and based on that it can be expected that VW will argue it's actually illegal to

share emails, including internal company emails.

Finally, your Honor, we're the only firm, along with the Hagens Berman firm, that has filed a case on behalf of the 80,000 Volkswagen purchases.

THE COURT: Thank you, Mr. Quinn.

MR. GIRARDI: Good morning. It's a hard job isn't it?

THE COURT: Harder for you than it is for me.

MR. GIRARDI: My name is Tom Girardi. Your Honor, I've been -- I'm not going to add any -- go through a bunch of stuff we've already put in our little brief to you.

We've been involved in leadership in a great majority of these cases. I do have the authority to say that Judge Fallon in Vioxx, Judge Klausner, Judge Otero have all given me very good grades.

You know there's an issue here due to the admissions of Vioxx, there's a great deal of emotion with some of these plaintiffs, and I think you're going to need somebody that can get along pretty well, not just with defense counsel, we always do that, but also with the plaintiffs' lawyers, and to be able to walk through this if, in fact, something is achieved.

And I think due to the great honors I've had of being president of almost every national organization, the International Academy, Litigation Counsel of America, National Trial Lawyers, I think I've proven the ability to get along.

That's all.

THE COURT: Thank you.

MR. GIRARDI: Nice seeing you.

THE COURT: Thank you.

MR. PRESS: Your Honor, my name's Allen Press. I'm from St. Louis, where I have a complex commercial litigation practice.

A big part of that practice for 20 years, Judge, has been representing dealers, and I'm here on behalf of a Chevrolet dealer this morning. My client's name is Eagle Auto Corporation. It is the Chevrolet dealer in Riverhead, Long Island. And their case is under the Lanham Act, Judge. It's completely different than the consumers theory of liability.

And I support what you heard earlier from some other lawyers, that we believe this should be a separate track for the dealer cases.

Now, we were the first to file a Chevrolet case, Judge. The Chevrolet case is simply, it's the Chevrolet Cruz is actually a clean diesel, Judge. It actually is clean. And the allegation is that Volkswagen's misconduct, its false advertising steered customers out of Chevrolet stores and into Volkswagen stores, that is the theory, and that is a vastly different case than the consumer case, Judge.

Now, I'm uniquely qualified, I think, Judge to have a leadership role in the Lanham Act litigation, because while I'm a dealer lawyer, I'm also a class litigator. I've tried class

actions.

I'm not real comfortable talking about myself and touting my accomplishments, Judge, so I'm going to let the words of a judge that I tried a case in front of in New Jersey, do my talking.

It was a class action filed on behalf of 2400 TWA pilots against their union. After a five-and-a-half-week jury trial, at the fairness hearing the judge said this about my work. "It really was extraordinary. It was extraordinary not only in the quality of the legal work, but its timeliness, its skill. It's just in the hall of fame of legal representations."

Judge, I would bring that same skill, and determination, and dedication to this case if I am appointed.

Thank you.

THE COURT: Thank you.

MR. MICHAELS: Good morning, your Honor. I'm Jonathan Michaels from MLG Automotive Law.

Allen Press and I are co-counsel on the Lanham Act case representing the Chevrolet dealers. I firmly do believe there needs to be a separate representation for the dealers.

I bring something that's very different and very unique to the table. My entire life is the automotive industry. I grew up around cars. My whole career has been dedicated to representing dealers against manufacturers in complex litigation.

I also have had the unique experience of representing some

niche automotive manufacturers, where we have been dealing with CARB and the EPA on a nearly daily basis.

I don't think there's a person in this courtroom who understands cars or the emission regulatory schemes and dealers better than I do.

I'd like to touch upon a couple of things that your Honor noted. One is about the personal involvement. When I'm appointed, you're going to get all of me. I have personally authored nearly 70 articles for the Los Angeles and San Francisco *"Daily Journal,"* all of which have been on the front page over the last five years, all of which have been on the automotive industry and unique legal issues related to the industry.

Back in 2013 we were involved in the General Motors MDL, and as a matter of fact, my journalism in working with the *"Daily Journal,"* actually led to part of that story breaking. I was nominated for a Pulitzer Prize for that work.

We're involved in the Hyundai litigation. And, you know, last point I want to make is about being a trial lawyer. You're right. You know we do need the threat of this thing may go to trial.

I have personally tried four cases this past year that were significant jury trials, all in the automotive sector, all which went very well for us.

I think we bring a very unique experience, and it's going to

be me 24/7 being involved in this case.

Thank you very much.

THE COURT: Thank you.

MS. KRALOWEC: Good morning, your Honor. My name is Kimberly Kralowec. I am the principal and sole owner of the Kralowec Law Group in San Francisco.

Out of more than 150 applicants, I was the first of only two attorneys to point out the need for, and to request to be appointed, responsibility for establishing the liability of specific defendant groups.

And I would like to explain why I believe it is going to be very important for the Court to make specific assignments of particular committee members to take on responsibility as to each defendant group.

We just heard defense counsel say this morning that they are investigating an appropriate fix for all of the models, but that it may not be possible to engineer a fix, either at all, or in a timely manner for some of the models.

And it's going to be critical for attorneys to be immediately assigned to drill down on each of the models and figure out whether an appropriate fix has been proposed, or an appropriate buyback program has been proposed to make the consumers whole.

Now, while all of the defendants in this case are going to be liable for aiding and abetting each other's violations,

nevertheless liability is going to have to be established separately for each defendant, and even if liability were admitted, which it hasn't been for all defendants, and even if we were to go straight into settlement discussions immediately, it would still be necessary to do targeted discovery to each defendant.

They are likely to have different employees. They are likely to have different recordkeeping systems. And frankly, I would recommend that that should be part of your Honor's discovery plan, to assign committee members to drill down as to each of the defendants.

I asked to be given responsibility for the Porsche defendants because I was the first to file a comprehensive complaint, with a full panoply of claims against the Porsche defendants, but I would be happy to take on whatever assignment the Court sees appropriate.

Thank you.

THE COURT: Thank you very much.

We're half through. I guess that's both the good news and the bad news. So we'll take 15-minute recess and resume at 10:30.

(Off the record at 10:15 a.m. Back on the record at 10:33 a.m.)

--o0o--

THE COURT: Okay. So we will resume.

Josh Van Eaton, Wylie Aitken, Stephen Larson, Howard Longman, John Heenan, Ben Barnow, Joseph Meltzer, Martis Alex, Gordon Greenwald, Elizabeth Pritzker, and Robin Greenwood -- I'm sorry. Gordon Greenwood and Robin Greenwald.

Proceed. And you stand in a unique position; is that right?

MR. VAN EATON: Yes, your Honor. Josh Van Eaton for the United States of America.

THE COURT: Yes. This is counsel who represents the United States in this litigation and I asked him to speak because my understanding is that the United States Government will play a role, somewhat circumscribed and different from the traditional role on a Plaintiffs' Steering Committee, and maybe you can discuss that if you would.

MR. VAN EATON: I'd be happy to, your Honor. Thank you.

I was honored to receive your call last week about serving as a government liaison counsel, and I just wanted to raise, and remind the Court that the statutory obligations that the attorney general and his representative, in this case me, are in a unique position to represent claims of the United States and no one else.

So to the extent that the Court intends to appoint lead counsel, our expectation would be that nobody will be lead counsel for the U.S. claims except for the U.S. Attorney and his representatives. That's all.

THE COURT: Well, I appreciate that, and that will -- it is my intention to appoint you as the representative with respect to United States' claims, and you will be liaison counsel.

You won't make the decisions that will be required of the Plaintiffs' Steering Committee, but of course you can have input into it, and where your positions may be different from that of the Plaintiffs' Steering Committee, you are free obviously to pursue those positions, unhampered by the fact that the steering committee may want to go in one direction or another.

Your representation is separate and apart from that, but I thought it was very important, for everyone concerned, and because the government plays such a large role in this litigation, to make sure that they were part of the process, and in particular, part of the settlement process.

So thank you very much. I want to thank the government for its willingness to participate, and especially you Mr. Van Eaton.

MR. VAN EATON: Thank you, your Honor.

We are happy to coordinate, and participate, and liaise as necessary, and we look forward to trying to find a resolution for everybody.

THE COURT: But I understand you're not going to pay any money. Thank you very much.

MR. VAN EATON: Thank you.

THE COURT: You may proceed.

MS. ALEX: Good morning, your Honor, Magistrate Corley, Mr. Mueller, counsel.

I'm Martis Alex from Labaton Sucharow in New York City. I'm seeking a position on the Plaintiffs' Steering Committee, and I thank the Court for the honor to very briefly introduce myself this morning.

There are so many talented attorneys seeking leadership positions here. Why should the Court choose Martis Alex? I'll give you four quick reasons.

Number one, leadership. I have demonstrated through my work as court appointed PSC member in other MDL's, and as lead counsel in other litigations, and as lead trial counsel that I am capable of serving a leadership role in complex litigation. I've demonstrated that I can try cases. I can settle cases. I've demonstrated leadership. That was number one.

Number two, experience. My -- the last 25 years of my career have been spent litigating complex cases. I have experience in auto defect economic loss cases. I have experience in other kinds of MDL's, and I bring a different kind of experience. I have special experience litigating complex financial fraud class action cases. That experience will be relevant and helpful here. There will be complicated financial issues.

Number three, collegiality. I'm a team player and a

consensus builder.

Number four, commitment. At the moment I'm not serving as court appointed PSC member in any other litigation. Being on the PSC is an honor and a big responsibility, particularly here where the PSC will need to work closely together to achieve a reasonable solution. I am all in right now, available to make the commitment, whatever it takes, and I understand it's a personal commitment, but I also bring my firm.

Thank you, your Honor.

THE COURT: Thank you.

MR. MELTZER: Good morning, your Honor. Joseph Meltzer from Kessler, Topaz, Meltzer & Check.

Your Honor, in September of 2015 I completed myself as one of the key members of the executive committee in charge of the BNY Mellon, Forex litigation in front of Judge Kaplan, and I mention that for a couple of reasons. One, it's recent. Two, it's over.

I was the particular person from my firm, I will be the particular person in this particular case.

Three, it resulted in recoveries of nearly $700 million, and the timing works out pretty well, your Honor, because the most relevant part, and why it's particularly relevant here, is the way we litigated, mediated, and resolved that case with the United States Government, in coordination with the New York Attorney General's Office, the SEC, the Department of Labor.

I was principally involved with mediating, negotiating, and resolving all those claims, along with litigating that case, 130 depositions taken in that case, tens of millions of documents were reviewed in that case, but the coordination that's going to be involved is very much the same, and it's going to be necessitated in this matter.

We're going to need to have people who can work with the government, who know and are experienced in resolving cases that involve different types of claimants, as well as different types of parties.

Moving quickly to resources. My firm is a hundred attorney firm. We are based in Pennsylvania. We have a full-service office here in San Francisco. We finance cases of all sizes. We staff them. We do it routinely. We were lead counsel in the Hewlett-Packard securities litigation before your Honor. You recently approved a $100 million settlement for the class in that case.

In terms of results, I won't go too much beyond my application, but we have recovered tens of millions of dollars for our clients in classes they represent.

We have several recoveries in the billions of dollars, in terms of the judgments following trial in the billions of dollars, and I think we would be a value-added member of the steering committee in this case.

THE COURT: Thank you, Mr. Meltzer.

MR. HEENAN: Good morning, your Honors. John Heenan from Billings, Montana.

Your Honor, unlike --

THE COURT: There weren't a lot of cars up in Montana.

MR. HEENAN: There is not a lot of cars, and frankly there's not -- I think there might be more lawyers in this courtroom than there are in Montana, also.

Your Honor, I'm candidly not a mass torts or MDL attorney. As I submitted in my application, I think I can candidly tell the Court, I'm what I characterize as an in-the-trenches consumer lawyer, and for the past several years my practice has been almost nothing but suing banks, lenders on behalf of consumers.

And I'm here today not because I sued Volkswagen, but because I sued banks and lenders -- Volkswagen Credit, Bank of America, J.P. Morgan Chase, Wells Fargo. And the reason I sued those lenders, your Honor, is under the FTC holder rule, the lenders stand in the shoes of Volkswagen.

So from the consumers' perspective, at least borrowers, the Court talked about a quick fix. I share with the Court the opinion that there is a quick fix for people that, on a monthly basis, are required to make payments on vehicles that they purchased under fraudulent pretenses, and the FTC holder rule says that the banks -- if someone has to take the hit between the borrower and the bank, it's the bank.

So a month after the hundreds of lawsuits that were filed in this case, I filed a case in Montana against the lenders. I moved for injunctive relief, and that motion has been pending for three months now, and I share with the Court that there's a quick fix.

I'd ask to consider putting me on -- establishing a borrower track, and letting me, under the guidance of the experienced counsel here, work to try and get a quick fix for borrowers.

Thank you, your Honor.

THE COURT: Thank you.

MR. LONGMAN: Good morning, your Honor. My name is Howard Longman from Stull, Stull & Brody in New York.

I hope the chart that I provided the Court, listing all the applicants proved useful, and I would like to continue to be able to serve in this litigation as a member of the steering committee.

So I'm going to try not to repeat what I said in my prior application. My firm has a national reputation in the field of class action securities laws. We've actually tried a case before this Court several years ago, the Everex litigation.

I have developed a consumer side of my firm's practice. We've had cases against Nissan, Chrysler, and others.

In this case, which I think, your Honor, begs for a total recovery since they've admitted liability, we've achieved results -- I've achieved results in automobile cases nearing the

one hundred percent mark. In one case against Nissan we got a hundred percent back.

To make an interesting connection, the client I represented in this case, Dan Goldman, I represented his grandmother in a case against Dreyfus, it was a securities case and we got back 85 percent of her lawsuit, which I think is somewhat unheard of, especially in the securities field.

So we would like to bring -- I'd like to bring our deal in representing our clients to this case, where the expertise we've developed in litigation and settlement of automobile cases, and especially the difficult process of administering these settlements, which I don't think we're quite up to that point yet, I'd like to bring that here.

In a case where this company, which has checkered beginnings from 1937, has one -- has shown that it completely disregards the world's opinion -- the U.S.'s opinion of what normative laws are, has completely disregarded the environmental laws of this country, doesn't seem to care about the environment at all, and I think that since they've admitted this conduct, I'd like to bring our passion and zeal to doing this.

I also spoke to Mr. Geller this morning outside, from the Robbins Geller firm. He shares my commitment to get a full recovery, and I hope to join him on the committee.

Thank you.

THE COURT: Thank you.

MR. LARSON: Good morning, your Honor. My name is Stephen Larson of the newly created law firm of Larson O'Brien.

I'm counsel of Mitsuda. This is the third filed case in this matter.

I am recommending to this Court that it create and consider appointing me as liaison counsel, or as several people have referred to, as coordinating counsel in this matter.

I'd just like to underscore two points that are further set out in my application.

The first is what I think is the clear need to have a liaison counsel, or coordinating counsel in this matter.

As the Court has pointed out, this will largely focus on damages, remedies, and resolution.

I thought Mr. Quinn made a good point though, we really don't know how the liability is going to phase out. It's a complicated case and there's a lot of unknowns that we probably haven't considered.

What we do know is there are a lot of stakeholders. There are over 500 civil cases in this MDL. There are multiple investigative and regulatory actions, not only locally, but in states, the federal government, internationally. There's independent state actions that we heard about today. There's individual cases to be filed, I'm sure in state court, and amongst all of these there are both overlapping and varied interests.

VW FOIA, EPA 06/20/2017 2017-FFP_038519

And I think it is critical that we have a liaison who will manage and coordinate information among the plaintiff shareholders, serve and conduct as a conduit among those stakeholders, and report to and coordinate not only with this Court, but Judge Corley, with the special master, Director Mueller, and all the various parties and interested third parties that are involved in this, a lot of coordination.

Everyone's being very nice and good today, but I'm sure as we go forward there's going to be tension. It's going to be a tense case, and I think it's going to be really important it's well coordinated and well liaisoned.

My second point, your Honor, is I believe I'm well-suited for this. I was a former Magistrate Judge who conducted over 400 settlement conferences, former district judge who also was the architect and handled many complex class actions and the like, my prosecutorial background and the like. I would encourage you to consider me for that role.

THE COURT: Thank you, Mr. Larson.

MS. GREENWALD: Good morning, your Honor. Judge Corley. My name is Robin Greenwald and I'm from Weitz & Luxenburg in New York.

As your Honor stated this morning, the events underlying this MDL have had, and continue to have, serious environmental consequences.

And what I offer this Court is basically 30 years of

VW FOIA, EPA 06/20/2017 2017-FFP_038520

practicing environmental law, 20 years of that for the Department of Justice.

So it's kind of ironic where I'm in this group where the first person up was the Department of Justice, where I learned grammar as well, before I learned how to practice law.

Since leaving the Department of Justice, your Honor, I have applied my environmental training particularly well. One is in the MTBE national litigation against the oil companies of New York, and then most recently in the BP oil spill litigation, where I actually litigated regularly with lawyers from the Department of Justice, and with Ms. Cabraser and other people in the room actually.

So these various cases against VW, regardless of the location, which we talked about this morning, are going to involve coordination with the Department of Justice, the Environmental Protection Agency, states attorney general, other environmental agencies at both state and federal level, and certainly class counsel. And one thing that I believe I uniquely bring to the table, your Honor, is I know so many of the players in all those various parts because of all my years of experience working with the Department of Justice, EPA, and some local state attorneys general.

Last but not least, I just wanted to share my trial experience. I was involved in phase two BP oil spill case before Judge Barbier, and you would have my personal commitment

that I would give whatever time is needed to bring this case to resolution.

Thank you very much.

THE COURT: Thank you.

MR. GREENWOOD: Good morning, your Honor. My name is Gordon Greenwood. I'm with the firm Kazan, McClain, Satterley & Greenwood here in Oakland.

I'm appearing on behalf of my law partner, David McClain, who the Court knows, by way of application, is out of the country and unable to be here today.

Mr. McClain's made application to be a part of the steering committee. And in support of his application, he leans upon his reputation and experience as both a trial lawyer, and a very experienced negotiator.

As his application indicates, he has had numerous seven- and eight-figure verdicts as a trial lawyer, but even more so he has negotiated billions of dollars in settlements, most in the area of asbestos litigation, in the context of Chapter 11 bankruptcy proceedings and insurance coverage suits.

Additionally, he's negotiated billions of dollars of settlements on behalf of individual plaintiffs in products liability cases, and in conjunction with representing other plaintiffs firms in litigation against hundreds of defendants.

His reputation is not just laid out in his application in his own words, but it's also verified by jurists that your Honor

is familiar with, the Honorable Justice Daniel Weinstein, Retired Judge Bill Cahill, and Retired Judge Charles Renfrew.

So with those recommendations, your Honor, we -- Mr. McClain stands on his application. He's personally available to participate in this litigation, and has cleared his calendar, and is available to bring to bear all the resources that are necessary.

Thank you.

THE COURT: Thank you.

MS. PRITZKER: Good morning. Elizabeth Pritzker, Pritzker Levine in Oakland, California.

I want to start by thanking the Court and Magistrate Judge Corley for your personal commitment to these proceedings. It's apparent under the Court's leadership and the active management of this litigation, we're going to have to see a light at the end of the tunnel, at some point, and hopefully not too long down the road.

I represent consumers in the law case, which is one of the first cases filed in this district. Included in that case is the Executive Director of the Williams Cancer Resource Center, as well as a member of the Oakland Board of Supervisors. In addition to wanting their rights as consumers represented, they have a distinct interest in the health and environmental concerns that this case brings to bear, and I'm seeking to serve on the Plaintiffs' Steering Committee to represent their

interests, and similar interests of other consumers.

I have prior experience as class counsel in similar litigation. I was sole class counsel in a secret warranty consumer case class action against General Motors. Like all car cases, it involved technical, legal, and financial issues. That case was resolved just as GM was about to go into bankruptcy, and that settlement required us to navigate both bankruptcy, as well as the Court system and getting a resolution to the clients.

I also have experience as class counsel in other class actions, particularly working with EPA and CARB on class action EPA litigation. I was appointed to leadership positions in those cases because of my personal involvement and personal commitment to the cases.

If I had the honor and opportunity to serve as committee member here, I would bring that same personal commitment and involvement to this case.

Thank you.

THE COURT: Thank you, Ms. Pritzker.

MR. AITKEN: Thank you, your Honor.

I'm Wylie Aitken, nationally known trial lawyer, former president of the state trial bar, and all-around really good guy.

As I headed up on the plane today, as I was coming up from the Central District -- and I do bring diversity because there's

a dramatic difference, as the Court knows, between SoCal and NorCal -- coming up from SoCal I was looking at the plane thinking, do I get on this plane? Because despite the fact that I think I am one of the elite trial lawyers, you have assembled the greatest group of elite trial lawyers I've ever seen. And hanging out in the front I feel a little like the flower that's in this incredible lavender field. It's one flower.

I thought about it, should I get on the airplane, or should I just go to the 7-Eleven® and buy a lottery ticket for the Powerball and see which has the better chance.

I do have experience, your Honor, Toyota, liaison national counsel, co-counsel with Frank Pitre on the economic side, handled a number of different class actions.

I finished up a class action recently in front of Judge Dave Carter, of course the Toyota with Judge Selna.

So I feel like I bring experience to this table. And I thought what really -- the nexus of the geography, the number of cars in Southern California, what really distinguishes me? And having listened to all these presentations, I can tell you, even though I have a successful law firm in the class action field, I am presently unemployed, and therefore I submit myself to this Court and the Court's judgment.

Thank you, your Honor.

THE COURT: Thank you, Mr. Aitken.

MR. BARNOW: Good morning, your Honor. It's a tough

VW FOIA, EPA 06/20/2017 2017-FFP_038525

act to follow over there. I have been around quite awhile, as my paper indicated, 46 years in practicing law.

I think it's interesting and worthy of comment here, that I spent the first 23 years basically doing defense public relations, entertainment law, et cetera.

Why is it important here? I think so because I think it taught me concepts of mutuality, et cetera.

When the Chicago loop flooded quite awhile back, about 23 years, I was driving around, I looked up and I said, thank you Lord for having my next class action. It's a true story and that's it.

I filed it, and I became a lead counsel. I took it all the way to the U.S. Supreme Court. The other two leads said, you do the arguments because you did the briefs, and I did.

And I shrank my law firm down from 14 people to a couple, and at the time it created what I thought was a good idea.

MDL's weren't quite that popular back then, and what I did was, is create what I thought was a perfect law firm.

So then I stormed into AOL online access, and I organized 58 law firms.

As my paper indicates, I've done a lot of cases with a lot of lawyers. I get a long with lawyers, lawyers get along with me. Can I get the job done? You bet. Why? Because push and shove gets you to the right issue.

I am a great believer in prompt resolution, and I

wholeheartedly endorse what this Court has said with regard to a need for prompt resolution here.

One of the things I hear is the embodiment of different sectors. There's no question those sectors are all important, but I think you have to separate them. Why? While universal resolution is a virtue, when universal resolution stands in the way of an immediate and available resolution, and when the rest of those parts can be dealt with, you have to do that.

Quickly. I did one case, which I don't think is in my small submission, having to do with 14.2 million hot water tanks. I resolved it for consumers. The government did what they did, and that's common practice.

I thank the Court.

THE COURT: Thank you.

Next group will be Bill Rossbach, Marc Seltzer, Powell Miller, Michael Kelly, Rosemary Rivas, looks like Sherrie -- oh, Sherrie Savett, Diane Sammons, Adam Moskowitz, Ed Kilpela, and Graham LippSmith.

MS. RIVAS: Good morning, your Honor. My name is Rosemary Rivas. I'm from Finkelstein Thompson, LLP.

I'm a passionate consumer lawyer. I've dedicated my entire legal career litigating from start to finish and resolving class actions on behalf of consumers in a wide variety of areas, including fraud and defective products, as reflected in my biography.

I think equally important to coming up with a fix and compensation for consumers, is effectively communicating and informing consumers of those remedies and their options.

A 2011 GAO report found that only 65 percent of recalled vehicles are actually ever repaired. I think everyone in this courtroom can agree that that would not be acceptable in this case, given the harm to the environment and to people.

Our goal should be to have a hundred percent of the vehicles repaired or taken off the road, and that means communicating effectively with consumers, having a robust notice program, multi-lingual notice, including in Spanish and other languages. I speak Spanish. I would be able to assist with that.

I was co-lead counsel recently in another case where we received a record-setting 600,000 plus claims from class members, and I will bring that expertise to bear here.

I will fully commit my time and my energy to this case if selected by the Court.

Thank you.

THE COURT: Thank you.

MR. MILLER: Good morning, your Honor.

My name is Powell Miller, and I am the founder of the Michigan-based Miller law firm.

I seek a position on the steering committee. Twenty years ago I sold my car, sold my house, and started one of the first class action firms in Michigan, as well as a boutique commercial

automotive-related litigation practice.

My application demonstrates that I have a national reputation in class actions and commercial automotive litigation.

I can bring value in three ways. One, boots on the ground in Michigan. Michigan has one of the highest percentage of cases that were filed. Lots of evidence, lots of activity.

My office is just a stone's throw away from Volkswagen's environmental and engineering headquarters on Hamlin Drive. There's also Continental, a supplier, the EPA activities in Ann Arbor.

In addition, I can help solve the mystery in this case. It's not a who-done-it as relates to VW, but there is a did-Bosch-also-do-it issue. Bosch is one of the world's largest suppliers, your Honor. More than 50 billion in annual revenues, and Bosch and VW in Germany, and in the United States in Michigan are super tight.

Bosch supplied the key components for the defeat devices, and Bosch is a key supplier to VW.

I have spent my time on over a hundred automotive supply based cases, over the last 20 years. Automotive contracting is arcane and complex. It does not use standard contracts. Instead, it's a maze of requests for quotes, for terms and conditions, and purchase orders. I know that like the back of my hand.

I'm a lawyer's lawyer. My peers selected me as one of the interim lawyers before Judge Rose.

Thank you.

THE COURT: Do any defense counsel have any information on Bosch in connection with this litigation?

MR. CHASE: Your Honor, at this point we know they're a supplier. We do not know the details at this point of, you know, their involvement other than being a major supplier.

THE COURT: Well, they have the name?

MR. CHASE: Yes they have, your Honor.

THE COURT: But they're not -- they're presently unserved and we don't know what the exact status is?

MR. CHASE: I can't --

THE COURT: Whether they've been served or not served. We'll inquire after that.

Thank you very much.

MR. CHASE: Thank you, your Honor.

MR. KELLY: Good morning, your Honor. Michael Kelly, Kirtland & Packard, Los Angeles.

I'm applying for a position on the steering committee. My application that I submitted basically details my credentials and my history, not an application made on behalf of my firm. I have no other commitments which would prevent me from giving a hundred percent of my time and energy to this case.

However this case proceeds, on however many tracks, or

however many directions, led by however many people, the thing that's going to permeate everything is going to be the dissection and re-dissection of complex technical information.

This -- although we're calling this an auto case, it's not really an auto case. It's something much more complex than that, and the skillset that I would bring to this litigation is 36 years of litigation trying to verdict complex technical cases.

I was selected by Judge Selna to serve on the Toyota lead counsel committee, which I did. I saw that case through ups and downs, and to its conclusion.

I've litigated many complex litigation matters over my career, many of them involving grounding of fleets of aircraft, complex technical matters involving computers, satellites that didn't function once they got into outer space, and many complex systems with regard to automobile computers and flight systems.

I have the ability to understand, to litigate, and communicate complex technical matters. I have the ability to work with various experts of various disciplines on complex technical matters.

Finally, I'm able to work without ego and as part of a team.

Thank you, your Honor.

THE COURT: Thank you, Mr. Miller.

Mr. Seltzer.

MR. SELTZER: Good morning, your Honor, Judge Corley, Director Mueller.

I believe I have special experience that I think could really add to the leadership structure in this case.

I've litigated complex cases for over 40 years, class actions and other complex cases, including cases on behalf of auto purchasers. One of those cases is the auto parts MDL in Detroit where we worked cooperatively. I'm one of the co-lead counsel in class actions in California and Florida. We've achieved settlements there of about 225 million so far in the case.

In the Toyota case, Judge Selna appointed me as one of the co-lead counsel. I think that experience brings me special qualifications to be in leadership in this case. I was involved in every strategic decision in that case, in the settlement discussions, and I took special responsibility for issues on the record from my peers on choice of law, questions of class right proof of reliance, all those kinds of questions I expect will be presented in this litigation.

In addition, in the settlement in that case, I think it was especially innovative because the settlement was crafted so that different groupings of class members had different remedies, and that, I think, is also an issue that may arise here as well, because we had different categories of purchasers based on the engine time, et cetera.

That settlement was historic. It was $1.6 billion in value, according to Judge Selna, and I think that speaks very well of the role I played in that case.

Over the years I believe I've demonstrated I can work cooperatively with my co-counsel, with opposing counsel, and our mantra at the firm is, be civil, and that's what we live by.

With respect to mediation, I've worked with national mediators on many cases, including Ken Fineberg. I know how to resolve cases successfully with the help of that kind of mediation procession.

Finally, if appointed, you have my personal commitment that I will devote whatever time is necessary to bring this case to a just, fair, and rapid conclusion.

Thank you, your Honor.

THE COURT: Thank you, Mr. Seltzer.

MR. ROSSBACH: Good morning. My name is Bill Rossbach, and I am the second lawyer from Montana.

THE COURT: Well, so who's practicing there today?

MR. ROSSBACH: I know. Even though there's only -- there's not that many lawyers or cars in Montana, there's two of us lawyers here today.

I practice in Missoula, Montana. I've spent -- like a number of the other lawyers who have just spoken to you, basically focused my entire practice on technical litigation, product liability, and environmental litigation primarily.

I did 10 years of intensive litigation of individual automobile product cases, and then individual environmental cases.

In 1990, I expanded my practice into the larger type cases when I was appointed to be lead lawyer in the science case of the Exxon Valdez. I immersed myself for five years in that case, learned everything I could possibly know about near shore ecosystems, oil, etc. Did more than a hundred days of depositions, and was responsible -- at the time of trial, I was assigned 45 experts to prepare for or develop testimony.

Since that time I've also done other technical litigation, environmental litigation as the lead science lawyer in the case.

I think just -- we've mentioned Judge Selna a number of times. I haven't practiced in front of Judge Selna, but Judge Selna was my opposite in the Exxon case. So many of those litigation positions, Judge Selna was on the other side, and I'm sure he would be happy to support me.

Three things that I think provide a unique -- my unique experience. One, I've also served for 20 years on various governmental and regulatory boards, appointed by the governor, administrating and adjudicating clean air class cases.

I've also represented the Attorney General of Montana for 10 years in pharmaceutical and consumer protection cases.

And third, I've represented many environmental clients, and I know from my own experience in Missoula, there are a lot of --

there are a lot of my friends and neighbors who have these cars, who are going to be very upset if they don't get justice, and I'm very comfortable working with them.

Thank you.

THE COURT: Thank you.

MS. SAMMONS: Good morning, your Honor. Diane Sammons with the law firm of Nagel Rice in New Jersey.

Your Honor, it's a privilege to be considered for leadership in this case. Our written papers provide significant detail of my 30 years of experience, starting as a prosecutor in Manhattan where I tried dozens of cases, your Honor, and continuing to serve as lead or co-lead in multiple MDL cases, and other nationwide cases, including high-profile, politically sensitive cases, the In re: African American Slave Decendents litigation, In re: Apartheid.

These cases involved international companies including car manufacturers, international governments. I've also led product liability actions, In re: Kaprun ski train fire case, and consumer fraud cases, your Honor, In re: Discover Card payment protection.

If appointed to leadership, my priority is the prompt, robust, and transparent settlement of this case.

Prompt. The government case cannot be the tail wagging the dog of the consumer case syphoning off finite settlement monies away from the individual consumers.

Robust. The settlement must be significant. Liability has effectively been admitted, your Honor, and the damage seems to be a straightforward calculation of diminished value or payback.

Transparent. The process must be transparent. We have a highly educated and engaged class who are reeling from the blatant nature of this fraud. They must have absolute confidence in the attorneys who are handling this case and the Court system. We believe we can utilize new technologies to keep them engaged, virtual meetings, social media.

And finally, to increase the settlement pool we must engage the German government in the settlement process. As Bloomberg noted in a recent article about the case, Germany will not be a neutral observer.

My firm and I have significant experience in facilitating government cooperation, your Honor. We think we can add value to this case.

Thank you.

THE COURT: Thank you.

MS. SAVETT: Good morning, your Honor. I am Sherrie Savett, Berger & Montague in Philadelphia.

With so many talented lawyers here, why should this Court select me as the leader in this case?

The short answer is first, I am making the personal commitment of my time and effort. My firm has abundant

resources, both human and financial, which we will dedicate to thoroughly and efficiently litigating this case.

We have 56 lawyers and a very sophisticated in-house computer database management system.

Second, I am deeply experienced in MDL and complex class action litigation, and I have a long record of success.

Examples of important cases where I have served as lead counsel include, the TJX data breach case affecting 15 million consumers. We settled it for $200 million. Judge Young called the settlement innovative, groundbreaking, and excellent.

The Rite Aid security class action litigation settled for $334 million. Judge Carvill stated that we were at least 18 months ahead of the United States Department of Justice in ferreting out the massive fraud.

I have settled scores of securities and consumer class actions, over my almost 40 years of practice, many approaching or exceeding $100 million.

In the key town area, I litigated with a team against several large drug companies, and we produced collective settlements of over $1 billion.

Third, I enjoy excellent relationships, and have worked closely with many of the firms applying for leadership. Thirty-three leading firms have supported my application.

As a managing partner in my firm, I promote collegiality and team work every day, and I will do the same here.

In sum, I will be honored and privileged to serve the class here.

THE COURT: Thank you.

MR. LIPPSMITH: Good morning, your Honors. My name is Graham LippSmith, and I'm from the Kasdan, LippSmith, Weber, Turner law firm in Los Angeles.

I'm probably one of the few people here talking today who can proudly say when I walk my dog in my neighborhood, I look around, and a good 20 to 25 percent of the vehicles in my neighborhood are the vehicles that are at issue in this litigation.

I'm part of the rising generation -- or hope to be part of the rising generation of consumer advocates. I have a lot of terrific experiences and worked with a lot of people in this room, but I think this case could really benefit from having some members in the leadership who are part of this rising generation of consumer advocates.

We fall pretty squarely within a lot of demographic criteria that Volkswagen targeted specifically in this case. We understand the victims in this case a lot better. And just as important as it is to appoint the giants in this case, like the Bruce Simons of the world, and Mark Robinsons of the world, and the Chris Seegers of the world, which should absolutely be all involved in this kind of case, I think there's a lot of insight, energy, and fresh approach that those of us from the younger

generation, people like Scott Nealey, people like John Heenan out of Montana that want to represent the bar, people like Art Murray who wants to represent dealers as a co-lead, I think we could bring a lot to the picture here.

I am a younger applicant, but at the same time, I do have a lot of great experience. I think this shows in the number of firms who have supported me. I have 28 firms supporting my application. Last I checked, that puts me at about number 15 out of all the people who are applying for the positions, but it also puts me at number four for people who are applying solely for a steering committee position.

So I would be honored to have that role if your Honor would be pleased.

Thank you.

THE COURT: Thank you.

MR. MOSKOWITZ: Good afternoon your Honors, Mr. Mueller. My name is Adam Moskowitz from Miami, Florida.

I'm applying only for the role of plaintiffs' liaison settlement coordinator. It's kind of unique.

When I read the application, it asked for PSC or lead counsel. But in the last four months in traveling around the country dealing with this case, I noticed that the way I could personally help your Honor would be in that type of role.

It started at the MDL hearing where there was discussion about what mediation would happen, and there was some reports

that there was a mediation already started with the very Honorable Layn Phillips, there was some going on in Detroit and New Jersey, there was some discussion by Ted Frank at his institute who filed papers about what type of judge should receive it, and I think with the whole world looking at this case, that anything I can do to make whatever settlement that is eventually reached beyond reproach, I would be willing to do.

I flew out here for just that specific reason. I've been teaching class action litigation for 20 years at the University of Miami School of Law.

I have served on various boards across the country like the Duke Advisory Council, where we just focus in on the process for settlement.

I've also been lead counsel in my own cases. This past two years we've settled about $2 billion in value, with forced place insurance.

But I think in this case how I can help your Honor is coordinating all of the different entities that I've already talked to -- we haven't been retained by anybody for that reason.

I've dealt with state practitioners that are suing dealers for strict liability, trying to stay away from the Volkswagen angle.

I've talked to attorney generals that are filing in their

states.

I've talked to people in Canada who are bringing cases up there.

I've tried to have some discussions with the government, I know they have actions.

There's the securities class action that your Honor has appointed a lead counsel.

So what I would volunteer my time would be to help coordinate all of those parties in working with Mr. Mueller and seeing how I can personally help out. I would be more than happy to give a report on a weekly basis to the Court, and to limit my fees, so there's no question that the purpose is somehow to make fees in this case.

My purpose would be to make sure the settlement that's reached is the perfect under Rule 23.

THE COURT: Thank you.

MR. MOSKOWITZ: Thank you.

MR. KILPELA: Good morning, your Honor. I'm ambitiously going to try to stay under my two-minute time limit. My name is Ed Kilpela. I'm from the law firm of Karlson, Lynch, Sweet & Kilpela in Pittsburgh, Pennsylvania.

As the Court has recognized numerous times, both in the previous hearing here and today, there are numerous interests that will be active in this litigation. There is, of course, the United States Government, the securities plaintiffs for your

Honor has already appointed counsel.

I'm seeking to be part of the Plaintiffs' Steering Committee for the dealership track. You've heard from a number of attorneys representing dealers, both Lanham Act cases and independent car dealers, your Honor. I think one of the things that might have been lost in the shuffle, but I think is apparent from our letters that we submitted, is that we have self organized.

We all -- all of us are supporting Dee Miles and Ar Murray as co-leaders of this track, and we have already begun working together to assimilate our different knowledge bases from what we know from our clients, our different areas of expertise, and we've already begun pooling our resources, identifying experts and other things, to effectively prosecute the claims of the distinct class of plaintiffs that we seek to represent.

I would also note that the applications of Mr. Miles, Mr. Murray, and myself, and others are also supported by many of the attorneys in the room today seeking to represent the consumers, because like the Court has mentioned, and I think alluded to, they also agree that the dealership track requires a separate group of leaders, and I would be honored to serve in that capacity.

Thank you, your Honor. I didn't need it all.

THE COURT: Thank you.

The next group is Steven Toll, Dan Rose, Robert Clifford,

Stuart Eppsteiner, Robert Gilbert, Michael -- Michael Kelly, right? Matthew Mendelsohn, Michael Heygood, Scott Schlesinger, Todd Hilton -- we've already heard from Mr. Kelly.

MR. KELLY: Yes.

THE COURT: You only get one shot at this.

MR. TOLL: Good morning, your Honor. Steven Toll of Cohen, Milstein, Sellers in Washington, D.C.

I'm the managing partner for 20 years of this firm, which is now one of the largest class action plaintiff-type firms in the country.

What you're doing here, your Honor, to me is analogized to selecting a dream team of lawyers with all this tremendous talent.

Of course by the letters you could tell the egos are prominent among all the lawyers, but when it comes to selecting who you're going to, it's like the dream team, the egos have to somewhat go to the door while we all work together as a team. And part of my background, as submitted in my letter, is known integrity, professionalism, and ability to work with others.

Another something unusual here in support of that, because it's an honor that I got, a book written called the "Ethics Gap," the erosion of ethics in our profession, written by none other than Joseph W. Cotchett. But what's great is that there is a quote which means a lot to me, "Steve, to a good friend who represents the very best of our profession. Joe."

I've been fortunate to work with the Cotchett Pitre firm in the BP Securities MDL, and now Ms. Fineman, Mr. Pitre's partner, in the Lumber Liquidators MDL, and there's a great deal of mutual respect between us.

The reference to Washington, D.C. is important, your Honor. I was going to make a point today about the importance of the EPA and DOJ, and having the government lawyer here was interesting, but something I think that will help a lot is, two of my former partners, I think, have a great deal of respect for me. One is now the general counsel, Avi Garbo of the EPA, one is Matthew Axelrod, he is the right-hand man of the Deputy Attorney General of the United States.

I know them well. I think they respect me well. I think that will help a lot as this process goes. I've avoided having contact to discuss the case at this time, it just wasn't the right thing to do, but I think it's important to help, I think it can be beneficial to the team of lawyers that you will select.

Finally, again the D.C. connection. Mr. Mueller there, a number of his partners I know, including Bill McLucas, the former SEC head of enforcement for many years, who can speak well of me. And, of course, I know Ken Fineberg quite well, as well.

Thank you, your Honor.

THE COURT: Thank you.

MR. EPPSTEINER: Good morning, your Honor. Stuart Eppsteiner. Your Honor, I represent Hendricks and Shappless plaintiffs, cases that were filed in California and Tennessee, one of which is a 2009 TDI owner.

The reason why I mention this is, there was comment about some of the vehicles may not be able to be fixed. My understanding is that relates to the older vehicles.

I happen to have a client with one of the older vehicles, which I understand may defy efforts to repair.

My application is to be appointed to the steering committee. And the Court should grant it, because I have tremendous years of experience in class actions being sole counsel, co-counsel, and lead counsel.

Most recently I was involved in the settlement with Bosch involving front-load washers, so I have experience in dealing with large German corporations, got some insight into sort of how --

THE COURT: Where are they?

MR. EPPSTEINER: Um -- the --

THE COURT: You're not being held accountable.

MR. EPPSTEINER: The washing machines are actually made by a partnership of Siemans and Bosch. So they were the direct defendant.

But the experience I gained in that I think could be put to valuable use here, in terms of the organization, how to collect

data.

There have been illusions to problems with discovery that led to depositions in obtaining emails, based on domestic laws in Germany. We have worked through those in the Bosch case successfully, so we were able to obtain the data we needed.

I do think that in terms of the discovery plan that the Court is looking for, that is something that will take a lot of work, even to produce within 30 days. There will be a massive amount of data that will be needed. It will need to be assimilated, organized, and made useable. That is something I have tremendous experience at, and think I could be valuable to the class, and to the Court in organizing.

Thank you, your Honor.

THE COURT: Thank you.

MR. CLIFFORD: Your Honors, good morning. I'm Robert Clifford from Chicago.

I'm not part of the rising generation. Although, most of us we hope we're not part of the sinking generation.

I filed my application as a three- or four-page listing of my credentials. I thought it would be useful to your consideration, although to focus on one aspect, and that is the 9/11 litigation. I was Judge Hellerstein's liaison counsel for that litigation. I took the first deposition in 9/11.

I led the negotiating team in mediation with Retired District Judge Martin that led to the ultimate

billion-dollar-plus settlement in that case.

So the experience that I think I bring to the table is considerable. I've worked with Mr. Fineberg on developing regulations -- victim compensation regs for 9/11.

So my firm and myself, in particular myself, would make a commitment to you. I think we have value. I do come from Chicago and, you know, there is a concept of diversity -- geographical diversity, coming from the South Side of Chicago, and being a short Irish guy with rosy checks, I never thought of myself in the context of diversity, but here it matters. There are thousands and thousands of victims in our community, and in our region, who have a voice that want to be heard.

I mentioned in New Orleans I thought it was important that the voices be heard, and that there be extensive communication for those hundreds of thousands of people who are impacted by this. So I would ask for the Court's consideration.

Thank you, sir.

THE COURT: Thank you.

MR. ROSE: Good morning, your Honor. Dan Rose. Law firm is Kreindler & Kreindler.

I'm breaking the first rule of being a famous lawyer, in following Bob Clifford. I want to thank you for letting me appear and speak for you on behalf of my partner Anthony Tarricone, who sadly lost his father on Tuesday.

I want to make a few points about Mr. Tarricone's experience

and credentials.

First of all, geographically our firm represents 700 clients in three offices, New York, Los Angeles, and Massachusetts -- Boston.

Mr. Tarricone heads up our Boston office. We have not an insignificant amount of clients from Boston, and a little known fact, Massachusetts was recently named the fifth most eco-friendly state in the nation, even more so than California I'm afraid.

Mr. Tarricone's past president of the American Association for Justice, which probably everybody in this room is a member of, except for our esteemed colleagues from Herzfeld & Rubin, and Sullivan & Cromwell, goes to his ability to work with a lot of the esteemed colleagues in this room.

He's been in leadership positions on many class action mass tort proceedings, including BP oil, the NFL concussion cases, and presently the Fresenius drug actions.

He's had extensive experience dealing with European defendants in U.S. litigation, particularly with respect to discovery issues overseas. In fact, he's a member of the PEOPIL, which is the equivalent of the American Association for Justice here.

Lastly I'll point out, as Mr. Clifford also pointed out, our firm played a significant role in working with Mr. Fineberg, in the aftermath of the 9/11 terrorist attacks. We represented

thousands of victims, and worked helpfully with Mr. Fineberg in establishing procedures and protocols to end the litigation justly.

THE COURT: Thank you.

MR. MENDELSOHN: Good morning, your Honor. Matthew Mendelsohn.

I'm here today seeking a position on the Plaintiffs' Steering Committee. I'm a partner with Mazie, Slater, Katz & Freeman, a 12-lawyer firm in Roseland, New Jersey.

I have been retained by plaintiffs in nine other states prior to the formation of this MDL, had filed three separate actions in the district of New Jersey.

Additionally, a significant part of my practice is automotive defect class actions. Since 2010 I've resolved six nationwide automobile defect class actions against various manufacturers.

I continue to be contacted by consumers, almost every day, with regard to this case, and have spoke with over 150 consumers to date.

Most significantly as I think it relates to this case, I previously litigated a complex nationwide class action against Volkswagen, which was defended by Mr. Chase and his law firm.

That litigation involved a large defect of over 3 million vehicles. The discovery in this case resulted in the production of hundreds and thousands of pages of documents, and over 50

depositions taken, many in German and Spanish languages.

Despite what was a hard-fought litigation, in the end we were able to come together and work with defense counsel and broker an excellent settlement for the class, which included modification of the class vehicles, reimbursement for out-of-pocket expenses, and revisions to the maintenance instructions in those vehicles.

I think my experience and knowledge that I gained in that case makes me uniquely qualified here, particularly with regard to any discovery that will go on.

Lastly, I recognize there are many well qualified attorneys here today, and admittedly I haven't been around the block as many times as some of my colleagues.

That being said, I think there is value to have somebody like myself on the Plaintiffs' Steering Committee who can add a fresh perspective to this litigation.

Thank you.

THE COURT: Thank you.

MR. HILTON: Good morning, your Honor. Todd Hilton of Steuve, Siegel, Hanson, Kansas City, Missouri here speaking on behalf of my partner, Patrick Steuve.

As you know, your Honor, Mr. Steuve regrets not being able to make it today. He's involved as corporate representative in depositions in the In re: Syngenta GMO corn case, in which he is currently lead counsel.

VW FOIA, EPA 06/20/2017 2017-FFP_038550

Speaking on his behalf, I won't reiterate most of the credentials and background Mr. Steuve submitted in his application and his resume. What I would like to do is provide a finer point to the Court of the value-added, that Mr. Steuve brings, both as a trial attorney, and as a negotiator.

Besides being involved in a vast array of automotive defect class actions throughout this country, against nearly every major automotive manufacturer over the last 15 years, Mr. Steuve and myself, over the last 15 years, nearly each and every year, have been involved in a pending class action against this defendant, and in nearly each of those cases Volkswagen was represented by Herzfeld & Rubin -- Mr. Chase and his partners at Herzfeld & Rubin.

In some of those cases they were hotly litigated up until the day or two before trial, in which a liability class had been certified.

In some of those cases we were able to effectively resolve, and efficiently resolve those cases very early on, including a case in which VW had completely redesigned the defective part at issue in the case, and we settled that case and helped implement the recall of those parts in that fashion.

Mr. Steuve would like to be able to bring that experience, and that background to this case as a member of the Plaintiffs' Steering Committee.

Thank you, your Honor.

THE COURT: Thank you.

MR. SCHLESINGER: Good morning, your Honor. I'm Scott Schlesinger.

This reminds me a little bit about the story about the farmer who entered the mule in the Kentucky Derby. His friends said, do you think your mule has a chance of winning? He says nope. No chance whatsoever, but I think he would benefit from the association.

I think I would benefit from the association with all these fine lawyers. I'd also very much like to be involved in a case that settles, because my reason for that is I've been trying tobacco cases in the Engle Progeny litigation in Florida. I'm a Florida lawyer.

I spent the entire year last year in courtrooms, some of which, against some of the firms here that are applying, litigating and trying cases to verdict against tobacco.

This case is an intentional tort case. I spend my days on concealment, fraud, fraudulent concealment, fraudulent misrepresentation. My clients relied on these frauds or they wouldn't have bought these cars. Punishment. Exemplary damages.

One of my clients in Maryland, Ms. Adami, she leases the car. If she's late, Volkswagen punishes her. They penalize her up to 10 percent on her $200 monthly car payment.

So you said walk softly or speak softly and carry a big

stick, well the big stick is punitive damages in this case, and there are exemplary damages to be considered.

I represent 550 or more Volkswagen owners and folks that lease these cars all throughout the country. I filed several cases. I have the support of Cotchett Pitre, and several of the other firms, I'm on a major automotive case -- MDL Plaintiffs' Steering Committee, so I'm ready. I'll put the time and effort into it. I've got the qualifications to do it.

Some of that stuff's laid out in my application, so I really relish the opportunity to participate in this steering committee.

Thanks, Judge.

THE COURT: Thank you.

MR. GILBERT: Your Honor, good morning. Almost good afternoon. My name is Robert Gilbert. I'm from Miami, Florida. My application is docket entry number 624.

Your Honor, the Court, and indeed the putative classes in this case, are blessed with a great abundance of exemplary talent in this room. People who have applied for these positions.

The key, in my humble opinion, is to assemble a team. A team that knows how to play and work collaboratively and peacefully, to achieve the best results.

One of the great blessings of being a father, is coaching youth basketball teams. I coached many of them. The most

important lesson that I instilled in my teams, is there is no "I" in team. We all have to come together, whether we're leadership, whether we're PSC members, in order to form that collaborative process that's going to take this case to the finish line.

I want to be part of the leadership team responsible for delivering justice in this case.

In addition to the qualifications and experience I outlined in my application, I'd like to point most importantly to my track record.

I do not seek many appointments in MDL's. I have sought a limited number of them. I have been appointed by Judge King to manage, as coordinating counsel, the overdraft MDL with over 30 defendants. We're on the tail end of that. There are only two or three defendants left.

I have worked with over 150 lawyers, over 30 defendant banks, and they're fine counsel, many of the plaintiffs' lawyers in this room.

I know how to manage a case. I know how to assemble a case. And in addition, I know how to try a case. I've tried multiple class actions in state court and in federal court throughout the Southern District of Florida, and I would encourage the Court to speak, and check with Judge King, and check with Judge Rosenberg regarding my qualifications.

I'm in the enviable position now of having the time and the

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resources to commit to this public service. If your Honor appoints me, you have my word and my commitment, from day one, until the day this case is closed, that I'm with it to finish it.

Thank you, your Honor.

THE COURT: Thank you.

MR. HEYGOOD: Your Honor, I'm Michael Heygood from Heygood, Orr & Pearson in Dallas, Texas.

As my application set forth I have -- you know, I've led as chair of multiple MDL's before in the past, and have tried multiple cases against some of the biggest companies in the country, and in that regard it's -- it's a little unseemly and hard to stand in a room -- of this room and tout your chest too hard about your past accomplishments. I'll- --

THE COURT: You'll be in good company.

MR. HEYGOOD: -- well, no question. No question. I'll let the resume speak for itself.

I think the judges and opposing counsel that I have set forth in the application that I've worked with in the past would tell you, if they haven't already, that I would be an asset to this leadership, in this litigation, and I will allow that to speak for itself.

I actually come before you today with one singular thing to emphasize, and that is this. I understand we're lawyers, and I understand that we talk in shorthand, and no decisions have been

VW FOIA, EPA 06/20/2017 2017-FFP_038555

made, and I get how that works, but so far in all the hearings we've had, the pleadings, and even today, it is the predominant words have been class counsel, class action, putative class, things of that nature.

There are a number of plaintiffs and lawyers in this country, and I am one of those lawyers, who have settled mass settlements outside the class vehicle, in a situation where massive amounts of people, against Johnson & Johnson, Mylan Pharmaceuticals, Bosch, Ryobi where we engineered settlements that did not utilize the class vehicle. And what I ask the Court to do, I represent as of yesterday 618 -- the owners of 618 affected vehicles in this litigation. There are a few other lawyers that represent a lot of individual clients.

My history has been individual settlements. I ask this Court, as strong as I can, to make sure that the leadership committee of this particular leadership, is not just class counsel. That is both for reality and appearance. Any settlement will have to be sold, and the appearance has to be that it wasn't just class counsel, or historical class counsel, but lawyers who have historically focused on individual claims. There has to be presence in leadership committee with that experience.

THE COURT: Thank you.

Next group William Audet, Patrick Emery, Walter Walker, Richard -- I think it's Hagstrom, William Federman, Gerald

Stranch, Charles Hopper, Roxanne Conlin, Lewis Eidson, and Thomas Brandi.

MR. WALKER: Good morning, your Honor. I'm Walter Walker. I'm a San Francisco trial lawyer.

I've tried numerous cases in this courtroom dating back to 1981 when Judge Schwarzer was handling the Guillain-Barré cases.

My office is just down the street. And even in this electronic age, that should provide some advantage to the Court and the steering committee.

I'm applying for a position as a lieutenant, or a captain in this Army of generals. I'm here to do the grunt work. I want to do the grunt work. And I'm available to do it.

I was urged to present my application to the steering committee by Joe Cotchett, who's seen my work and is apparently appreciative of it.

I have a firm of seven attorneys, one has just passed the bar, the other six are battle hardened, and well honored by the profession. If I am selected to be on the steering committee, all six of them will cover my work so that I am freed up to devote myself wholly and completely to this litigation.

Thank you, your Honor.

MR. STRANCH: Good morning, your Honor. My name is Gerard Stranch of Branstetter, Stranch & Jennings in Tennessee.

There's three things that I'd like to highlight to the

Court, two of which I think are unique to me.

First of all, I'm the only applicant that I'm aware of who is a fluent German speaker. And I have used that in other litigation before, both in coordinating and overseeing German language document review, and German language depositions.

In the Trazadol litigation I participated in trial depositions that were taken in Germany with translators. I used the German language, in that capacity, to help oversee what was happening, and also to catch some translation errors that were occurring along the way that otherwise would have necessitated going back to the United States, hiring translators, and working through it. It was able to be resolved right there on the spot.

So that's one thing that's unique about me, that I think should have me on the steering committee.

The second thing, your Honor, geographics. I'm in Tennessee. It's where over half the employees of Volkswagen North America are located.

Their suppliers that were involved in the production of the emissions systems are located in Tennessee. There have been multiple meetings there. And so that's in my backyard. And so I think that is something that should weigh heavily in my appointment as well, your Honor.

Finally, this may be a unique thing, but I have actually rebuilt a diesel engine before, and so when we get down to the technical issues involved in it, I will come with some

pre-knowledge that may be missing from other people. In other words, I may understand some of our experts a little better.

Thank you, your Honor.

THE COURT: Thank you.

MR. FEDERMAN: Good morning, your Honor. Bill Federman, Federman & Sherwood.

Texas has an outsized exposure to this problem at number two among vehicles. I'm a Texas resident. We've tried cases in Texas, and this case needs representation with lawyers who can try cases.

Your Honor, we are looking to represent a subcommittee of vehicle owners. I'm not looking to be a lead counsel. I've set up bellwether-type litigation with the Sullivan & Cromwell law firm in other cases. We tried a series of cases in arbitration around the country to -- where we were able to set up a matrix for settlement in an unrelated case to Volkswagen.

So I have familiarity with this. We're certainly going to need bellwether trials here.

I filed the earliest cases in Texas in the Northern District and the Western District. We've served the DTPA letter, so we're ready to go. And I've tried cases under the DTPA.

I'm familiar with the environmental laws, your Honor. I started with the environmental control board, and since then we are now working for the Sierra Club.

As I said, I'm a Dallas resident. The air in Dallas is

getting worse every year. We now have red alerts, where we're telling our children not to go outside during the summer. It's a horrible situation. It's exacerbated by just this situation.

I have experience with almost all of the attorneys in this room, from California to New York, Baron & Budd supported us, I support them. We work well together as a trial team.

You could develop a Swat Team in various states to assist lead counsel in trial.

I have Arizona, Oklahoma, and Texas cases on file. We have clients in New Hampshire, New York, Vermont, and other states. So we do use our efficiency across-the-board in the trial of these various states. Our billing rates and our experience make us ideal candidates.

Thank you.

THE COURT: Thank you.

MR. EMERY: Good morning, your Honor. My name is Patrick Emery. I'm a lawyer in Santa Rosa, California where I've been practicing for the last 41 years.

I'm here on behalf of myself and Professor Richard Frank, who is a Professor of Environmental Practice at the University of California. And we are specifically acting as co-counsel in this case in seeking a position on the steering committee as, what we've called, liaison counsel, but I've heard it referred to this morning as coordinating counsel as well.

First of all, I think it's an important role because, as

others have pointed out, there are profound cross currents here. And what occurs in some of the other proceedings that are under way, including the Department of Justice proceeding, the regulatory proceedings, and perhaps other matters to be filed, will have a major impact on how this case proceeds, no matter how hard we push in this case.

For example, how the EPA and CARB decide to permit these cars to be brought into compliance is going to affect fuel economy, longevity, value of the cars, and all of that is going to have a profound impact on the damages, and the damages analysis in this case. And I think that having someone appointed to the role that keeps track of, on a very current basis and a very specific basis, what's going on in those other proceedings, is important to the work of settlement in this case.

And I think that turning to why you should appoint Professor Frank and myself, and I did have the thought if you can get Rick Frank in this case, why do you need me, but he is the former Chief Deputy Attorney General of California. He has overseen the legal work of CARB. He knows everybody who's involved, both at the Department of Justice and at CARB. He's either taught them or supervised them at some point.

To myself, your Honor, I'm an experienced trial lawyer. I've tried every kind of case for 40 years, including successful pursuit of class action before juries.

I think that together we make a good team that could very effectively assist the efficient, and quick resolution of the case.

I thank you.

THE COURT: Thank you.

MS. CONLIN: Good morning, your Honors, and Mr. Mueller. My name is Roxanne Conlin. I'm a sole practitioner in Des Moines, Iowa.

I very much appreciate the Court's reference to our favorite movie, "Field of Dreams."

I'm the only applicant from Iowa. I might be the only sole practitioner who has applied, and I'm pretty sure I'm the only one who has had absolutely no experience with MDL's.

I have a thriving plaintiff practice in Des Moines, and I've never felt compelled before to apply, but this case seems different to me.

It seems different because it involves a betrayal of very responsible people who were trying to buy a clean car and ended up with a very, very dirty one. They were fooled. They were misled. They were mad.

What do I bring to the process? I have 50 years of trying complex cases from start to finish, and I know that the key to a fair and adequate settlement is a -- is getting ready to go to trial.

Among the cases I tried was a Microsoft antitrust case for

the consumers of Iowa. It's the only case -- we tried it for three months. It went three times to the Iowa Supreme Court, and it ended up in a settlement of $255 million. The only case Microsoft ever settled which paid cash -- actual cash money to consumers.

I believe that I bring creative thinking and fresh ideas. I'm a cause lawyer. I have a lifetime of trying to expand the rights of consumers in the public interest. I would be honored to serve.

THE COURT: Thank you.

MR. EIDSON: Your Honor, my name is Mike Eidson. I'm with the firm Colson, Hicks & Eidson in Miami, Florida.

I've rewritten my speech twice now, trying to say something that hasn't been said ten times already, so I'll do my best.

I'm applying for lead counsel or PSC, Plaintiffs' Steering Committee. And if I'm selected, I will make this my top priority.

I have been handling cases like this for over 40 years, since I tried one of the first Ford Pinto cases that was tried in the country in 1975.

I've been involved in every major recall. You say, is this a product liability case, nobody said it wasn't, it's an auto maker defect case like all the others. They made cars that did not comply with regulations. They knew it, and they did it anyway. And they're going to be -- they're going to stop and be

held accountable because they got caught.

Our job is to prove all this efficiently and effectively, and compensate for damages done to the environment, to the consumers, the dealers, and public trust.

This is a case for those who have been there. I was co-lead counsel for the Ford Firestone case, which was the most similar of these cases to me. It was held in Indianapolis, Indiana.

I worked coordinating that case with lawyers across the country, including many lawyers from California, many of whom are here, Mark Robinson, Frank Pitre, Elizabeth Cabraser, for example.

This was the largest automotive MDL ever. We worked quickly. We worked efficiently. And within two years we had taken hundreds of depositions. It was an international case. It involved Japan and South America, and every case -- every PI -- every injury case settled.

I had the former U.S. Attorney that handled complex criminal matters. I'm a former president of ATLA. I worked all over this country. I know the lawyers in this courtroom. I worked with them many times.

I worked directly with Fineberg in setting up protocols, for the trial lawyers for the pro bono program, the largest in history.

Thank you very much for allowing me to be here today.

THE COURT: Thank you.

MR. HAGSTROM: Good morning, your Honor. I'm Richard Hagstrom of Hellmuth & Johnson, which is located in Minneapolis, Minnesota.

I'm seeking a position on the PSC, and my submission is document number 773.

As your Honor's emphasized, the circumstances here require speedy resolution through, either, settlement or trial.

I wish to make a few comments about those criteria. First, as to capacity. I give you my personal commitment to focus on this case and do my job as a member of the PSC.

I've been co-lead counsel in prior MDL's. I've been on committees in prior MDL's. My prior MDL experience goes back to 1978, but in that particular one I was on the defense side.

Let me emphasize, when I have done numerous complex cases over the years, whether as plaintiffs' counsel or defense counsel, and especially as plaintiffs', I always assume that we're going to trial.

I never look at the case that this is going to settle. The only way you can get the best settlement is to take the case to trial, or be prepared to do so.

I've litigated major cases against companies like Microsoft. The only reason that we got the settlements that we did in those cases was we took them to trial for a lengthy period of time.

I'd like to also point out that, as to geographic diversity, there aren't many people here today from Minneapolis. I think

VW FOIA, EPA 06/20/2017 2017-FFP_038565

one other spoke to your Honor.

My firm regularly practices in Minnesota, Wisconsin, Iowa, North Dakota, South Dakota. We know the consumer laws in those states and we could offer value there.

I also have experience -- substantial experience settling major cases.

Thank you.

THE COURT: Thank you.

Mr. Brandi.

MR. BRANDI: Good morning, your Honor, Mr. Mueller. My name is Tom Brandi. And for geographical diversity I'm from San Francisco. A BART ride away.

For 30 years I've had experience in product defects against auto companies handling every phase, discovery, trial, appeal.

For the same amount of time I've been involved in mass torts, and drug cases, and in other consumer actions here in California.

I've had the privilege of serving with Frank Pitre on the steering committee that your Honor appointed to the Alaska Airlines crash. I've worked with Mark Robinson and Tom Girardi, on diet drugs, Yaz, Fosamax, where I was -- I served in all the different capacities, lead, liaison, but essentially I've been someone that's done a lot of grunt work, to use Skip Walker's phrase.

Every case I think, whether you have to look at the total

aspect of the case, we tried the Vioxx case -- the two Vioxx cases. I tried with Pitre and Girardi, and I think having tried mass tort cases, and tried a number of cases, you get a good understanding of what makes a practical and realistic settlement, and how to approach settlement, and I believe I bring those skills.

In this particular case, we represent plaintiffs from California. We have unique California issues, both with CARB, and with 17200, 17500, and the Consumer Legal Remedies Act. I've tried cases in those areas as lead counsel for a class.

I'm familiar with those legal issues, but more importantly, of the practical issues of how to put a case together.

There's a lot of generals here, and every army needs some foot soldiers, and I'm prepared, as in my other examples, to do that. Or, to use a baseball analogy, we've got a lot of Madison Bumgarners here, and maybe a few relievers would help, too. And that's what I'm prepared to do, your Honor.

Thank you.

THE COURT: Thank you, Mr. Brandi.

MR. AUDET: Your Honors, how are you? My name is Bill Audet, A-U-D-E-T, from Audet Partners.

Your Honor mentioned the word "unusual." I would like to admit, I'm probably the most unusual lawyer in this room. I'm not talking about my height, or my good looks, but just my career, and both where my office is -- I don't know if, your

Honor knows, I probably mentioned it a few times in my application, my office is literally a block away from here.

We just moved there. We have three large conference rooms and a lot of space for people to have meetings, for employees to prepare for trial. If the special master needs a little room for a couple of days, or an office, we can make one available for free, of course.

So that, in and of itself, is unusual in terms of the other applicants for coordinating counsel or liaison counsel, whatever that position is.

In terms of my career background, your Honor, I was -- after I graduated from law school, I went and got an LLM. It took me three years, and at the same time I was a professor teaching civil rights, and I was also representing inmates, and supervising law students for three years.

After that I was lucky enough, I came and was appointed by the Ninth Circuit to serve as a clerk. I served under a number of judges.

I then went on to be appointed by Judge Smith. I was her first law clerk.

After that the Gods fell in my favor, and Judge Zirpoli hired me as his last clerk.

So I know the inner workings of the court somewhat, things have changed since then, but not that much. I know ECF has made a little difference, but we're still going to need a service

list. We're still going to need things that a traditional liaison can provide, and I can provide that.

So hopefully your Honor will consider me, and consider my application.

Thank you for the opportunity to speak.

THE COURT: Thank you, sir.

The next group is -- I do have to mention this, because Judge Smith and Judge Zirpoli were both judges of remarkable talents. Judge Zirpoli was a great antitrust expert, was the first federal judge appointed by President Kennedy in the United States.

Judge Smith went on to have a fabulous career as a District Judge here, and did as such here, and significantly as head of the Federal Judicial Center, which she ought not to be blamed for the fact that she had the task of educating judges, but that every judge who's had the opportunity of coming -- every judge, I think, has benefitted from her service.

So Mr. Audet, you're very fortunate to clerk for these two fine judges.

So the next group, Joseph Saveri, Rob -- I think it's Shelquist, but I may be mispronouncing it. Robert Carey, Gary Patrick, James Terrell, Steve Shadowen, Stephen Basser, Randall Tietjen, David Vendler, and Blair Nicholas.

Mr. Saveri, you're up.

MR. SAVERI: It's almost good afternoon, your Honor.

THE COURT: Right.

MR. SAVERI: Thanks for your patience. And it's a privilege to be standing here in front of you. So let me make three points. One, personal commitment. Two, the importance of management in this case. And three, relevant litigation experience.

First, in terms of personal commitment, I stand before you saying that I'll devote my full energy, and attention, and passion to this case.

Also, I think it's important, your Honor, in a case like this, to focus on the management challenges that a case like this presents. It's very important, your Honor, that you choose people to serve who have experience aligning the interests of the various stakeholders in this case. I have that experience.

I've served in an executive or management capacity in a number of cases, particularly antitrust cartel cases that span the world, involve dozens of defendants, foreign companies, which involve cases where the Department of Justice has a very real interest.

We've done a very good job in aligning the interests of the Department of Justice, and the private plaintiffs in those cases, and I have personal experience with that in the past, and I have personal experience with that now, in the capacity of a case in front of Judge Donato, and I think that's very

important.

I also think management is important in a case with this kind of global footprint. We're going to have E-discovery challenges.

We're going to -- including the scope of the productions, the fact that the productions are going to be in languages other than English, translating those documents, organizing them in a fashion sufficient to prosecute this case.

And again, I have that experience. I've managed cases, had my sleeves rolled up, managed cartel cases where we've had significant challenges like that.

I've had all relevant experience in these types of cases, from the beginning, all the way through trial, and appeal.

Thank you.

THE COURT: Thank you.

MR. PATRICK: I'm Gary Patrick from Chattanooga, Tennessee, your Honor. We're asking for appointment on the steering committee.

As your Honor is aware, Chattanooga, Tennessee is the only town in which a manufacturing facility of Volkswagen is located, in the United States.

Of the over 500,000 cars that are affected by this litigation, approximately 30 percent were manufactured in Chattanooga, Tennessee.

Chattanooga is home to over half of Volkswagen's work force

in the United States, including dozens of engineers. There is no other facility where so many engineers in the United States are employed by Volkswagen.

And, in fact, their national research center is located in Chattanooga, known as the North American Engineering Planning Center.

Faurecia, which supplies Volkswagen's emissions control technology, also has a facility in Chattanooga, Tennessee.

The officers and directors of Volkswagen routinely come to Chattanooga to visit the plant and talk to the employees there.

In fact, just last week the CEO of Volkswagen AG was in Chattanooga.

So we believe, your Honor, that Chattanooga will be a focal point for discovery in this particular case, and that's why we're asking to be on the steering committee.

I've been involved in commercial litigation, practiced commercial litigation for over 41 years. I routinely, almost weekly, appear in courts or in depositions. That's what I've done my entire career.

There are hundreds of people in the Chattanooga area that have asked us to represent them. We're the only law firm in Chattanooga that's requested appointment to the steering committee.

Thank you.

THE COURT: Thank you.

MR. CAREY: May it please the Court. Rob Carey for Steve Berman, who is at the GM trial in New York.

I have to obviously -- I told my wife I have to advocate for Mr. Berman's appointment in front of all this competition, and she said, so it's a little like a eulogy where everybody's hoping you do a crummy job. I said well, I guess that's one way to look at it, except maybe the Judge, I hope.

I'd like to make three points about Mr. Berman's application. One is, everybody's up here talking about their big cases.

And Steve Berman's obviously done all the big cases. He's led the big cases, but the success we had in those cases is not just from being appointed to those cases, it's from the little cases that we do out of the headlines, that we've done for years.

We've done testing for our cases. We've done device and software scam cases. We've done federal safety standard cases and emission standard cases, but more importantly, and more relevantly, we've done cases where we have buyback -- class-wide, hundreds of thousands of people who have eligibility for buyback remedies, for testing protocols, to see if you qualify for a class benefit.

And more importantly, for wrap-around hybrid remedies, such as the goodwill package where you take a remedy and you wrap it

around. And Mr. Quinn was up here, and against his firm we negotiated the Hyundai wrap-around remedy. And we embraced each other's ideas, and what ended up happening in that case was there was a 55 percent participation rate, which is unheard of.

And one of the things that we noted in our letter, was how much we've done on our Volkswagen resource hub. And we put out information, upon information, so people participate.

We have 20,000 people's contact information, 10,000 clients, and 180,000 people who have hit that site. Not because we're trying to develop clients, but because if you don't have them participating, your remedy will never work. If you have a notice, it will be a two percent response rate.

Finally, we have a reputation, three judges in this district have noted it, for containing costs and moderating fees. We did it in Hyundai. Our co-counsel criticized us, but Judge Wu would tell you it was a super cheap fare.

Thank you, Judge.

THE COURT: Thank you.

MR. TERRELL: Good morning your Honors. May it please the Court. James Terrell from Birmingham, Alabama seeking appointment to the PSC for the dealer track of cases.

From my review of the docket, I believe there's four Lanham Act dealership cases that have been file. I, along with my co-counsel, have two of those cases, representing dealers in

Alabama and Tennessee.

For 17 years I've handled complex litigation --

THE COURT: These Lanham Act allegations are from dealers who handled cars, other than Volkswagen, is that it?

MR. TERRELL: That is correct. This is a Chevrolet Cruze.

THE COURT: The standard is, because of the fact that somebody bought a Volkswagen didn't buy the Chevy, or didn't buy this or that, and had they known the truth about those, they would have bought the Chevy?

MR. TERRELL: That's correct, your Honor.

THE COURT: And that's the play?

MR. TERRELL: Correct.

THE COURT: Okay.

MR. TERRELL: Of the four cases that I'm aware of, we filed two of them representing Chevrolet dealerships.

I have extensive experience in class actions. I've been appointed class counsel in the Reciprocal of America Sales Practices litigation, for the hospital policyholders, but perhaps most importantly, I'm from a small firm.

In this case I think a small firm lawyer can bring something to the table. And that is, if you appoint me, you'll get my work product. It won't be anybody else's. It will be me. And I'll be here at the hearings.

Second, to manage a small law firm you have to manage

expenses, and you have to manage time, and I think your Honor's pointed out those are two of the most important things in this case, particularly if it proceeds along the settlement track.

So thank you for your consideration.

THE COURT: Thank you.

MR. SHADOWEN: Good afternoon, your Honor. Steve Shadowen. I'm appearing on behalf of Bob Hilliard, who is on trial with Judge Furman, in the Southern District of New York.

There are two aspects of this case that really call out for the appointment of Mr. Hilliard to a leadership position. That is, this is a social problem that involves people who are injured, stakeholders, and decision-makers other than the plaintiffs in this case, and there's going to be a need to coordinate with those other decision-makers.

Secondly, these cars are still on the road, so there's a need for speed in this litigation.

As one of the co-lead counsel in the GM ignition switch litigation, Mr. Hilliard developed very close and trusting relationships with the House and Senate Investigating Committees.

Chairman Murphy of the House Oversight and Investigation Committee, has already held hearings, will be hearing more, and one of Bob's roles in the GM litigation was to coordinate -- just facilitate with those committees.

Similarly, Mr. Hilliard worked closely with Ken Fineberg in

developing the compensation protocols in that litigation.

And he also worked closely with Public Citizen and other consumer advocacy groups.

With respect to speed, from the date that Bob and two other co-lead counsel were appointed in the GM litigation, until the start of the first bellwether trial in GM, in a case involving 124 deaths and thousands of injuries, 15 months, and Bob is the lead trial counsel in that case, that's going on right now.

He's tracked over a hundred jury trials. He's a personable guy who makes -- he's the grease that makes things happen. He gets on the phone. He talks to people, and he's a guy that gets things done.

THE COURT: So does he have time to do this?

MR. SHADOWEN: He does. We have the first trial. I just got a text while I was sitting here that plaintiffs rested, and that concludes our involvement in the bellwether cases for GM.

There will be some other winding up, but I talked to Bob specifically about that question, because I knew you would ask it. He says he's ready to go starting next week.

THE COURT: Thank you.

MR. SHADOWEN: Thank you.

MR. BASSER: May it please the Court. Good morning, your Honor. Stephen R. Basser of Barrack, Rosos & Bacine from their San Diego office.

I put in an application, docket number 709 and 917, and I would respectfully commend you to both those applications, because they pretty much say everything I'd need to say, but I'd like to underscore something very briefly.

I have -- after almost 40 years of practicing law since 1976, I have for the last three decades, almost confined my cases exclusively to fraud cases, cases of fraud and deceit, cases of corporate deceit and scandal.

My practice in securities litigation translates very well to this case, because at its core this case involves allegations of fraud and deceit, and especially misrepresentation.

I'd like to underscore two accomplishments, because I think I meet all the criteria that your Honor is requiring, which I've also laid out in my letter.

I have trials. The first year trial counsel and lead counsel, a fraud case to verdict. That's the Apollo case in Arizona before Judge Teilborg.

I engineered, basically, the entire strategy in that case, and did virtually all of the important assignments, including opening, closing, and I would be a valuable asset as a steering committee member who wishes to just get the job done, taking orders and direction from lead counsel.

And that trial experience would make me valuable, in a sense, that I would be able to give, in part, my thoughts about how to build a fraud case, how to take the evidence, synthesize

it, and use it.

There are a lot of trial depositions in that case, and I took many of them. I know how to do that.

I'd like to underscore the Bridgestone case, when I took foreign witness depositions in Japanese, through an interpreter. That's a real art form, and if you haven't done it, it can be quite challenging.

Thank you very much, your Honor. Appreciate it.

THE COURT: Thank you.

MR. TIETJEN: Good afternoon, your Honor. Randall Tietjen from the Minneapolis office of Robins Kaplan.

I'm here appearing on behalf of Craig Wildfang, my partner. You may recall from the letter, he recently had rotator cuff surgery and is not able to be here.

Now, Mr. Wildfang has applied for the position on the steering committee. He's very well qualified for that position, your Honor.

He has spent more than 30 years in his career, helping to resolve complex civil litigation, including in leadership positions in class actions.

Most recently as co-counsel -- co-lead counsel in the MDL involving interchange fees. He represented the class of merchants across the United States who accept Visa and MasterCard, in a settlement was against Visa, MasterCard, and all the large issuing banks. That settlement was for

VW FOIA, EPA 06/20/2017 2017-FFP_038579

$7.25 billion in 2015.

Last year he settled a class action, as co-lead counsel, against a group of large private hedge funds, for $595 million.

He has a long career of successes like that. He may not want me to acknowledge it, he also has tried some cases unsuccessfully, but I think that is to his credit.

He's tried cases. He's litigated them. He's done it all. And he is a dedicated and determined litigator.

He would also bring to this case the geographical diversity, that you mentioned at the outset, being from Minneapolis, Minnesota. When I got on the plane, it was 15 degrees below zero, so he could also offer some climate diversity.

Thank you, your Honor.

THE COURT: Thank you.

MR. VENDLER: Good afternoon, your Honor. Magistrate Judge, Mr. Mueller. My name is David Vendler. I wanted to talk, rather than my experience in other cases, about what I've done in this case.

It was my motion that essentially brought us all together to consolidate. I was the first one to, I think, get any sort of commitment out of Volkswagen about evidence preservation. We did that right away, and got their commitment that both VW and VW-AG, would abide by federal law for evidence preservation, including the SI.

I filed the first class certification motion, and the only

one to my knowledge that's pending. I did that, both because, there's a rule in the Central District that says you have to do that within 90 days of filing a class complaint, but more importantly, I feel that it's very important that we get a class certified so that there is a vehicle to communicate with all of the unrepresented class members that are looking for advice as to what to do presently, and I think we really do need to put that on the top of the agenda.

I obtained from Volkswagen their commitment not to seek to exploit the jury trial waiver and arbitration clause that was put into its gift card program that -- the goodwill package, as it was called, and so I think that was important that there was a significant loose end there.

When Mr. Fineberg was proposed as -- I was able to -- I put in an objection to that, and I think I was the only one that said, you can't have Volkswagen's agent as the settlement master.

I have also an environmental department, an appellate department in my firm. I think the indications that settlement are on the cusp are perhaps false. Volkswagen just said it was a technical error just recently, and it arose from a misunderstanding of the law. This is a punitive damages case.

With that I submit.

THE COURT: Thank you.

MR. SHELQUIST: Good afternoon, your Honors. Rob

Shelquist from the Minneapolis law firm of Lockridge, Grindal & Nauen.

I view myself as being a utility player, and a team player. I've had the pleasure of working with, and on behalf of, a number of lawyers in this room, and would anticipate doing that in this case as well.

As a matter of appointments I've had MDL lead counsel, executive committee, and PSC appointments. So I understand the duties and obligations that come with each of those appointments.

Substantively I've been involved in document reviews with foreign language issues, ESI issues, taking depositions, and in two cases being one of the trial counsel in a class action.

I understand that you are seeking a personal appointment, but the personal things that I just talked about were supported by a firm. The legal assistant and secretary in this case have been with me for 20 years. There's no issue that is going to come up that is going to be new or foreign to them.

My partners do class action work, not only here, but in securities and antitrust cases, and are used to supporting common held, and assessment in large cases such as this.

Finally, with regard to my firm, I think we're somewhat unique in that we have a lobbying presence, not only in Minneapolis, St. Paul, but in Washington, D.C. as well.

So to the extent that there's a need to coordinate with

agency, legislators, and others, we have that capacity, even though that's not something that I personally do.

I believe in this case and very much appreciate the opportunity to speak to you this afternoon.

THE COURT: Thank you.

MR. NICHOLAS: May it please the Court. Good afternoon, your Honor, Magistrate Corley, as well as Director Mueller. My name is Blair Nicholas. I'm a managing partner at Bernstein, Litowitz, Berger & Grossman.

I'm seeking appointment on the Plaintiffs' Steering Committee.

Over the past 20 years I have devoted my career, primarily to prosecuting complex class actions. The Court has observed my work numerous times, seen my dedication and my skillset in these complex cases.

Over the course of my career I've demonstrated my ability to work very cooperatively with co-counsel, with government regulators, with prominent mediators, as well as prominent special masters, and I would be committed to doing the same here.

In the course of those activities, we've recovered billions of dollars against companies across the world.

As reflected in my application, I've prosecuted a number of cases in which the underlying misconduct involved defective automobiles. The successful results obtained in these cases

required a thorough understanding of the automotive technology forensic analysis of the related defects, and they were complex cases.

I also have experience negotiating efficient resolutions of class actions involving foreign companies.

For example, in the Converium case, in addition to obtaining over $85 million for the U.S. class, we were able to obtain $60 million for the foreign class through the first ever collective settlement in the Netherlands.

I also have a lot of experience working on complex actions with parallel enforcement actions by the government. In the WorldCom case we worked cooperatively with the SEC to distribute their fair funds.

In the Axel Rosenberg case we did the exact same thing, that was litigated in this Courthouse. And currently we are working with the Department of Justice with respect to the American Realty case.

Thank you, your Honor.

THE COURT: Thank you.

Jeffrey Harris, Hae Sung Nam, Andrew Entwistle, Alexander Schmidt, Marcio Valladares, Seth Safier, Francis Scarpulla, Joe Russoniello, Khaldoun Baghdadi, and Dianne Nast.

MR. HARRIS: Good morning, your Honor. Jeffrey Harris.

I -- my firm filed a case in Ohio. It's Dunn versus Volkswagen Credit and Volkswagen North America. It's filed in

the Southern District of Ohio.

Ohio is one of the largest states in the country. In fact, it's the fifth largest state. There's over eleven-and-half-million people in Ohio. It's also one of the most polluted states in the country.

There's significant public interest in regards to this case in Ohio.

But beyond that, I'd like to talk about this case a little bit. In this case, and under Federal Rules 23(g), one of the first factors in appointing a class counsel is the work counsel has done in identifying or investigating potential claims in the action.

In our case we were the first, out of the 500 cases, to file a comprehensive case that included all the Volkswagen defendants, including Volkswagen Credit, and I think that shows our expertise in this matter, because a case that's filed without Volkswagen Credit, where the car was either financed or leased through Volkswagen Credit, is not going to have the proper pleading, because you have to have a subclass for Volkswagen Credit.

The reason I say that is, they're different claims. There's claims under the Truth and Lending and Consumer Leasing Act, and there's holder in due course claims, and there's also different remedies. There's the remedy of rescission under those statutes. There's also going to be different damages and

different remedies.

To sum up, your Honor, we've also had extensive class action experience. And I will conclude on that.

Thank you, your Honor.

THE COURT: Thank you.

MR. SCHMIDT: Good afternoon, your Honor. Alexander Schmidt from Wolf Haldenstein in New York. We're applying for a spot on the Plaintiffs' Steering Committee to continue the work that we've been doing since September in this case, pursuing the RICO claims in this case, particularly against the Bosch entity.

I think most people in this room agree that the object here is to settle the case as quickly as possible, with as minimal expenditure of attorneys' fees as we can.

We've thought since September the key to do doing that are the RICO claims, both against the Volkswagen entities and against Bosch.

Obviously, the threat of treble damages creates a whole different system of incentives, both to settle the case fairly and justly for the class here, that is going to want as close to a hundred cents on the dollar, if not a hundred cents on the dollar, if possible, and I think the RICO claims could help us get past some of the many impasses in terms of discovery as well.

The incentives from a default judgment, potentially, in a

treble damages case may make the German entities and the German government a little more cooperative in terms of providing the documents that so far we've been unable to get, and the state government has been unable to get, and the federal government has been unable to get.

We have, since September, brought these RICO claims, and we've been at the forefront. We brought the first ones in the country -- we brought the first ones against Bosch. We have now organized a group of other firms that have sued Bosch as well, and we have started the process of serving Bosch, your Honor asked about it earlier.

We did serve an acknowledgement, which not unexpectedly, it was ignored. That process is now started. The process server tells us they expect Bosch will be served, current estimate is early March. So I hope you let us continue our work.

Thank you.

THE COURT: That's helpful. Thank you.

MS. NAM: Good afternoon, your Honor. My name's Hæ Sung Nam. I'm from Kaplan Fox. I'm a partner there. I am based in New York.

I've applied to be a member of the steering committee. I would like to extend my appreciation to this Court for spending the time and effort in the selection process, creating a workable, effective, efficient leadership structure is vital to the class, and protecting the interest of those that have been

harmed.

For 17 years I have represented plaintiffs in nationwide class actions. When I get involved in a case, I roll up my sleeves and I do the work. From doing depositions, to crafting litigation strategy, to even viewing documents, and actually the legal research, I do it all.

I'm not very good at delegating. So if I'm selected to be a member of the steering committee, I would be the one responsible for litigating this case. I will be the one responsible for working with this Court and all the parties involved, to expeditiously resolve this case, and provide a substantive, and fair remedy for those that have been harmed.

Thank you.

THE COURT: Thank you.

MR. RUSSONIELLO: May it please the Court, Magistrate Corley, Director Mueller.

Thank you for the opportunity to speak to you this afternoon, Judge Breyer.

I'm making an application for membership --

THE COURT: Just so everybody knows your name --

MR. RUSSONIELLO: Excuse me. Am I talking too loud for you?

THE COURT: Not too loud for me, Mr. Russoniello.

I'm curious that your application to join the steering committee was premised on the fact that you believe this case

would be resolved before January 20th next year; is that correct?

So you'll then be eligible for the United States Attorney for the third time in this district, is that --

MR. RUSSONIELLO: Hope springs eternal, your Honor.

THE COURT: Have I got that right?

MR. RUSSONIELLO: We know it takes at least a year to be confirmed.

THE COURT: But not in your case.

MR. RUSSONIELLO: Well, that's true.

THE COURT: Anyway, you don't have to make any commitment.

MR. RUSSONIELLO: Is the clock running on this?

THE COURT: Oh --

MR. RUSSONIELLO: We should start all over again.

THE COURT: The clock will be useful.

MR. RUSSONIELLO: Well, in any case, where was I? Oh, yes. So I make application on behalf of Eric George, and/or myself.

And mindful of the Court's admonition early on, let me just say that on behalf of Eric George, he's a polished, experienced trial lawyer, and well-rounded litigator, and I think would be a welcome addition to the Plaintiffs' Steering Committee.

As for myself, as you might expect I'm somewhat anxious, and

somewhat uncomfortable in talking about myself, as you might expect, but in all fairness, since this is not a time to be modest it wouldn't seem, let me just say that it will be 50 years in January of 2017 that I've been admitted for the first time in New Jersey, admitted to practice law.

And in all honesty, I think it's fair to say, that in those 50 years an extraordinary amount, maybe almost all of that time, has been devoted to the discovery of, the -- and the prosecution of fraud, in one aspect or another.

And I think another thing that it's brought to me, is a certain amount of cynicism. Obviously it's given me a great deal of experience in representing other people who have done great work to be able to say, we accomplished this, and we accomplished that, but quite frankly I can say, in my personal involvement in the LCD litigation, in the DRAM cases, in the carbon fiber cases, I've had enough experience with antitrust to know what that's all about, and certainly in securities, and consumer fraud work, since the earliest days of the D.A.'s office, working with my mentor, Julian Ryan, all the way through to the last days of the U.S. Attorney's Office. I think I've earned enough experience to be able to be hopeful to add value to the steering committee.

Thank you very much.

THE COURT: And you know the judge.

MR. RUSSONIELLO: Slightly.

THE COURT: All right. Thank you.

MR. SCARPULLA: May it please the Court. Francis Scarpulla, your Honor.

I won't repeat anything that's in my letter to you. But I just wanted to say that I've been practicing for 48 years, and all I've done is complex litigation.

Primarily antitrust cases, and primarily class cases involving consumers. And when I look around this room here at these portraits, I've had a case -- complex cases in front of every single judge that's up there. I've had cases --

THE COURT: We took down the portrait of Ogden Hoffman, otherwise you --

MR. SCARPULLA: I couldn't have made that statement.

THE COURT: He was the first United States District Judge in 18 --

MR. SCARPULLA: I notice he's gone.

THE COURT: All right.

MR. SCARPULLA: I did want to point out to your Honor, in my case we have made claims against not only Volkswagen, but also Audi, and Porsche, and we've named Bosch as a defendant. So we have all of them there.

Over the years of my practice, your Honor, I've worked cooperatively with not only plaintiffs' lawyers, but with the defense bar and with all the mediators with whom I have had cases.

So unless your Honor has questions of me, thank you.

THE COURT: Thank you very much.

Also, William Kershaw. I forgot to mention his name. If he's here, he should join the line, please.

MR. VALLADARES: Good afternoon. And may it please the Court, your Honors. My name is Marcio Valladares. I'm with the firm of Morgan and Morgan Complex Litigation Group out of Tampa, Florida.

I'm here on behalf of John Yanchunis. The reason for that is, a week prior to your Honor's issuing this status conference, the Court in the OPM matter, the data breach matter, a very large -- in fact, you may be a putative class member, as well as the Magistrate Judge, and your Honor as well, I am -- I know I am, and in that order the judge specifically required personal appearance. And we thought the best thing to do was at least to appear to show our willingness to and commitment with this case.

Mr. Yanchunis' application is docket 658. I think it speaks for itself.

A couple of notable things that I would say with respect to that case -- to his application is that he is clearly, in his 30-years-plus experience, devoted his practice to consumer protection litigation.

He's also quite involved in data breach litigation of recently, but in all those years it's been consumer fraud and

representing consumers.

I think something that's important to point out is that our firm, through his leadership, has at least between 700 to 800 individuals listed, and retained with the firm, to file individual actions.

The one action that we had, that's been conflicted into this Court, has been turned into an individual action. We would seek the leadership position, or at least to be liaison counsel, to represent those individuals who may, quite, have very different interests than those in the class, and may, frankly, turn out to be objectors.

As you know, I was a former federal law clerk, and we will certainly try to prevent that, and try to get those people, certainly, that are retained with us, but to represent the interests of individuals that are acting -- pursuing claims individually, not as part of a class.

THE COURT: Thank you.

MR. VALLADARES: Thank you, your Honor.

MR. BAGHDADI: Good afternoon. And may it please the Court. My name is Khaldoun Baghdadi.

I'd like to reserve 30 seconds for rebuttal. I'm a partner in the San Francisco law firm of Walkup Melodia, your Honor.

We are not new to trial work. We are relatively new to MDL and class work.

Our approach, however, has always been, cases are settled by

preparing for trial. We feel we could bring that approach here to assist, what I am certain would be one of the most amazing collection of lawyers assembled.

One thing that I think we would be able to focus on, and I particularly would be able to focus on, is discovery. We, in our district, are unique in that we have E-discovery guidelines. I may be unique in that I've read them, and would be happy to serve as the E-discovery liaison, should the Court, and the steering committee find it appropriate.

I've had the privilege of trying a case in front of Judge Corley, and the relationship I developed with opposing counsel is one I actually value until today, and we actually met during that case.

The civility and credibility that I feel I could bring to the Court, and to opposing counsel, I feel would be an addition to the case, and we would be privileged, and I would be privileged if asked to serve on the steering committee.

I thank you for your time.

THE COURT: Thank you.

MS. NAST: Good afternoon, your Honor. Good afternoon. Good afternoon.

I have listed many of the cases in which I've been in the leadership in MDL, in both my application, and in my resume.

I also added under the leadership category some work with the judiciary that I thought had some relevance to leadership

and responsibility in these large cases.

I first want to mention, your Honor has emphasized the personal nature of this appointment, and if I could add a pet gripe of mine to that, a continued personal commitment to the litigation.

Everybody in this room, who's been involved in, especially a big MDL, sees the steering committee may start at 12:00 and at the end of the day it's 6:00, because people got tired of paying the big assessment, or tired of taking trips or whatever, and went on to other litigation, and it would be nice to have a steering committee that stayed in place until the end of the case.

The second thing I wanted to mention is, I don't envy your job. This is -- I've been in many, many MDL's and I've never seen so many talented people applying for a relatively small -- compared to the number of applications, small number of positions.

I want to mention just two specific things concerning my involvement in MDL's. I've obviously served as lead counsel in many, and my first automotive case was, probably, appointed by a colleague of yours in St. Louis, Chief Judge Nagle -- the late Chief Judge Nagle, and I've been involved in a number of cases since the 1980's.

One of the things I love about MDL's is the complexity. The ability to write briefs. And I love the Federal Rules. I love

to use them to help our clients. They work very well when used that way.

And finally, I would add the word "civility." Settlement is not just getting to the end of the game, the very end of the day, it's also about being able to settle other matters that come up with your colleagues. And if you have, and practice civility, it makes it much easier.

THE COURT: Thank you.

MS. NAST: Thank you.

MR. ENTWISTLE: Good afternoon, your Honor, Magistrate Judge Corley, and Director Mueller.

Let me start, your Honor, I'm Andrew Entwistle. And let me start with a little different tactic than some of the others.

I think any lawyer who has ever been in this position wants to get to work, and to assist the Court, as we go through the process, and I think you know we've done that here already with the preservation in New York, and in some of the submissions we made, the auto industry material, et cetera, that we sent your Honor.

But it occurs to me that there are two things that your Honor's mentioned, one today, and one in our last session, that I think counsel for the defense and perhaps Director Mueller should think about.

One is a technical issue. Your Honor today said that -- asked the defendants to get Director Mueller the technical

information on this as soon as possible.

I'd like to suggest to my friend Mr. Giuffra, who I have known for years, that the defendants also get that to the steering committee as soon as possible, because having been someone who's wrenched on cars since I rebuilt the '62 Nova when I was a kid, you know, the technical information is really going to be critical, and a real driver here.

The sooner the plaintiffs' committee has it, the better.

I maybe only have to look at some of the things that were said last week publicly by the company, to know that when they talk about catalytic converters, for example, that's a solution that just doesn't work with horsepower and torque, things like that, so they're only partial solutions.

The sooner we get that information, the better.

The second is the identification of the purchasers. And, to the extent that we can get it through VW and the dealers, and get it into a database, where we can start communicating with customers, as soon as possible, about the process, the better off we are.

So thank you for the opportunity to be here, your Honor. You've got all the other submissions.

Thank you your Honors, Director Mueller.

THE COURT: Thank you.

MR. KERSHAW: Your Honor, and Mr. Mueller, and Magistrate Corley, my name is Bill Kershaw. And I guess I'm

last. That's what happens when one thinks the hearing is at 8:00 and gets -- thinks the hearing is at 9:00 and gets there at 8:00.

The last time I appeared in front of your Honor you transferred me to the Northern District of Texas. You probably don't remember that. That was awhile ago.

THE COURT: Well, how lucky can you get?

MR. KERSHAW: At the time I didn't think I was lucky, but then I wound up in the Southern District and it worked out pretty well.

Anyway, my office is in Sacramento, California. It happens to be virtually across the street from the California Air Resources Board, and I also served as the Chief of the Consumer Fraud Division for Sacramento County, and worked with many in-house -- worked with many of the state agencies, including CARB, Bureau of Automotive Repair, et cetera.

I am applying for a position on the consumer track, and/or the leadership track. I think there's -- with respect to the dealership track, there's some roughly eleven firms, I think, that are supporting each other for positions, for kind of a slate. I'm not part of that, but I think I have experience that goes deeper than all but a few of those firms.

One of the cases represented, or mentioned here, was the In re: American Honda dealership relations litigation, and I served as lead class counsel in that litigation.

We took depositions outside of -- not only outside of the United States, but also a federal penitentiary. And I also served as lead class counsel in the Bayshore versus Ford litigation, and that took 15 years. We tried it and achieved a significant verdict.

Lastly, the Ashes case in Sacramento was mentioned, that was a certified emotional distress class action in the mid eighties. Elizabeth Cabraser and I served as class counsel there. And I will say at the end of each hearing Judge Ford would -- after we were wrestling with the problems of emotional distress in class action, would turn to Elizabeth and say, do you know how to fix this problem? By and large we worked it out, and were able to fix it with the comments that she made.

Thank you.

THE COURT: Thank you, Mr. Kershaw.

Now, is there any applicant who has not yet addressed the Court?

Please come forward. I'll give you that opportunity.

MR. PHOENIX: Good afternoon, Judge. Yes, good afternoon. I'm from Florida. My name is Charles Phoenix. I apologize, I actually handed in my card earlier when I was out in the lobby.

I'm co-counsel with Tom Girardi, Jason Graham, and we filed the very first Lanham Act case, and we represent Bill Branch Chevrolet and -- down in southwest Florida.

Our client, actually Bob Goodman, who sits across from you, and he actually is attending law school presently.

I also filed an application to serve on the steering committee. I don't have a background of any of the people in this room, but I do know a lot about business law, and I know a lot about statistics, and I know a lot about accounting, and the Lanham Act claims are claims that are very different than any other, if they're close to any group, they're similar to the securities group.

You may have seen -- and if I could approach, I have submitted a table as part of my response to Mr. Girardi's application, and it demonstrates the four main tranches of cases before the Court.

And one of the things I'd like your Honor to take note of is when the Court's going to be looking at the matters in this case, the Lanham Act claims are claims about financial activities primarily, and they need counsel on a steering committee that is aware of those claims and can actually effectively move the case forward.

I think I could do that as a junior member, but I'm certain that Tom Girardi could.

At this point we've already begun working on the case. I've -- and Jason Graham, who is also co-counsel, have been speaking with Volkswagen's lead counsel for several -- a couple

VW FOIA, EPA 06/20/2017 2017-FFP_038600

months, actually, just before Thanksgiving, and I can tell you we've already felt the positive rapport.

I thank you for your time.

THE COURT: Thank you.

MR. ORLANDO: Judge, good afternoon. Your Honor. I'm Roger Orlando. I'm in from Atlanta, Georgia. My application can be found at docket number 596.

Similar to most folks, I'm here to request appointment to the steering committee. Similar to most of my distinguished colleagues behind me, I've served as lead counsel in a number of class actions over the years, about 30 years, first in the defense realm for nine years, and the last two decades as the plaintiffs' counsel.

I've also been in numerous, numerous MDL's, including lead counsel in an MDL pending in the Southern District right now before Judge Moskowitz.

Point one I wish to make to your Honor is that I understand and credit the Court for recognizing this as a personal appointment, that MDL is done. There's about 12 percent of the claimants yet to be paid. I've got one more court appearance and that is over.

It's hard to distinguish myself from so many fine lawyers behind me. I've heard people talk about being a general, some being a foot soldier. I will be the first to say, I have unique qualifications as a quarter master.

I have developed time and expense protocol, and programming to manage an MDL within steering committee, and I've also served as finance chair and run the bank, a position of great trust and accountability, in a number of class actions.

I hope I didn't miss the Court call my name. And that's it. Thank you.

THE COURT: Thank you. Pardon me.

Well, that concludes this rather brief session.

Let me -- I think my observation -- the Court's observations are probably exactly the same as yours.

There are many, many extraordinarily well qualified people who have, not just by virtue of large verdicts, but by virtue of many talents they have offered to bring today.

So I need to get it down to a reasonable number, and that's what I'm about to do.

Now, perhaps as an incentive to the defendants, I am making a commitment that my order will be out within 24 hours, and so I think -- I sort of learned it a long time ago, that when lawyers set deadlines which are called dates, there is something about a date. Actually, I learned it from Judge Orrick the first -- oh...

(Announcement over loudspeaker.)

THE COURT: I will be leaving with Director Mueller. That voice teaches even federal judges some humility.

I'm about to conclude my remarks.

As I was saying, Judge Orrick taught me that what you do with lawyers is, you give them a trial date, and you set that in concrete, and everything then flows from that.

And, of course, I will do that. I won't do it today, but I eventually will do that. And eventually probably means sooner than anybody really wants in this matter.

Nevertheless, one has to tailor any case to the particulars of that case. One has to realize that this MDL case is not like every other MDL case. There are obvious similarities and there are obvious differences, but I just want to emphasize to everyone in the room that I am deeply concerned about vehicles being on the road which are polluting.

You know, California is -- it's -- growing up in California it is unique, in that I remember as a child going to Redlands, California, which is in the San Bernardino mountains, and looking at the basin of Los Angeles, and seeing in the forties and the fifties a brown haze that made it extremely unhealthy to be in Los Angeles.

And the reason, in large part, was pollution caused by motor vehicles.

I would say that California, and other states in this country, have addressed that problem in a very serious way, and so, I think, that with that in mind, and with that understanding, and with the fact that the Court is going to set deadlines in this case, we all ought to move as quickly as

we can to try to resolve this in a sensible -- in a sensible way.

With that I'd like to see government counsel for a moment.

Thank you very much.

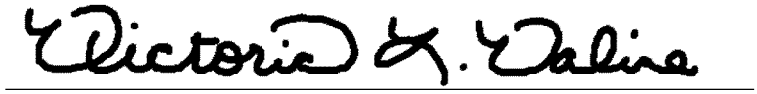
You'll get my order within 24 hours.

(Whereupon the matter concluded at 12:50 p.m.)

--o0o--

CERTIFICATE OF REPORTER

I certify that the foregoing is a correct transcript from the record of proceedings in the above-entitled matter.



Victoria L. Valine, CSR 3036, RMR, CRR

MONDAY, JANUARY 25, 2016

UNITED STATES DISTRICT COURT

From: Wehrly, Linc
Required Attendees: Joel Ball; Pidgeon, Bill; **Ex. 7**
Location: AA-Room-Office-C34-ConfRoom/AA-OTAQ-OFFICE
Importance: Normal
Subject: VW IUVP Discussion
Start Date/Time: Tue 2/23/2016 4:00:00 PM
End Date/Time: Tue 2/23/2016 5:00:00 PM

From: Ex. 7
Location: AA-Room-Office-C34-ConfRoom/AA-OTAQ-OFFICE
Importance: Normal
Subject: Accepted: VW IUVP Discussion
Start Date/Time: Tue 2/23/2016 4:00:00 PM
End Date/Time: Tue 2/23/2016 5:00:00 PM

;
Hello Linc,

Thank you very much for setting this up. There should be 3 Volkswagen staff at the meeting:
Ex. 7

See you then,

Ex. 7

To: richard.thomas@vw.com[richard.thomas@vw.com]
Cc: Snyder, Jim[Snyder.Jim@epa.gov]
From: Good, David
Sent: Tue 2/16/2016 11:25:53 PM
Subject: Re: 2016-2017 FE Guide - Errors in Verify as of 6AM on Feb 16, 2016;
VW_Group_2016-2017 FE Guide-all rel dates-no-sales-2-16-2016.xlsx

Richard,

Re: 2016-2017 FE Guide - Errors in Verify as of 6AM on Feb 16, 2016;

Attached are the data in Verify as of 6AM on Feb 16, 2016. Labels with pea green fill in the first few columns have errors which need to be corrected before I can have the data posted on www.fueleconomy.gov. Errors are listed in column 1 and highlighted in yellow in the field where the error occurred.

The next normal posting of 2016 FE Label data on www.fueleconomy.gov will be on February 23, 2016 (on a monthly schedule where I run the query on the 1st, 9th,15th and 23rd of the month) and send the data to DOE for posting on that day (or a day later).

Please make any needed corrections to Verify when you get a chance.

Thanks

Dave

To: Kaul, Meetu[Kaul.Meetu@epa.gov]
From: Karla Deane
Sent: Wed 2/17/2016 10:09:51 AM
Subject: Volkswagen class action proceedings
removed.txt
16.02.17 Letter to EPA.pdf
15.11.20 Dalton v VW - Statement of Claim (sealed) NSD 1459_2015.pdf
15.11.23 Richardson v Audi - Statement of Claim (sealed).pdf
15.11.23 Roe v Skoda - Statement of Claim (sealed).pdf

Confidential and subject to common interest privilege

Dear Madam

Please see **attached** correspondence.

Kind regards

Karla Deane | Lawyer
E: KDeane@mauriceblackburn.com.au | **T:** (07) 3016 0374 | **F:** (07) 3236 1966

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17 February 2016

United States Environmental Protection Agency
Washington DC 20460
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Attention: Meetu Kaul

By email: kaul.meetu@epa.gov

Dear Madam

Regulatory investigations into:
1.6 & 2.0L Volkswagen, Audi & Skoda engine vehicles
3.0L Volkswagen, Audi & Porsche diesel engine vehicles

In November last year, our firm, Maurice Blackburn, commenced three class actions in the Federal Court of Australia (NSD 1459 of 2015, NSD 1472 of 2015 and NSD 1473 of 2015) ("**the Proceedings**") on behalf of all those with an interest in affected 1.6L and 2.0L 'EA 189' diesel engine Volkswagen, Audi and Skoda vehicles (" **the 1.6 and 2L vehicles** "). The Proceedings have been brought against the local subsidiaries and international parent companies of Volkswagen, Audi and Skoda. The Affected Vehicles are listed in Part A of the Schedule at the end of this letter.

The Proceedings were commenced following various public admissions made by Volkswagen AG to the effect that such vehicles contained software used to def eat emission testing regimes. Copies of the statements of claim in the Proceedings are **enclosed** for your reference.

Maurice Blackburn has now received formal instructions to act on behalf of approximately 14,000 affected motorists in respect of these cla ss actions, although the proceedings themselves cover all Affected Vehicles in Australia, which are estimated to be almost 100,000.

In addition to the Proceedings brought on behalf of all those with the affected 1.6 and 2.0L vehicles, Maurice Blackburn has been instructed to investigate additional potential actions against the respondents and the Porsche group of companies in relation to certain 3.0L V6 diesel engines manufactured by Audi AG and used in certain Porsche, Audi and Volkswagen branded vehicles. We understand that such 3.0L V6 diesel engines were used in the Audi, Porsche and Volkswagen vehicles listed in Part B of the Schedule at the end of this letter.

VW FOIA, EPA 06/20/2017 2017-FFP_038610

Our investigations into the potential claims in connection with the affected 3.0L V6 ve hicles follow the announcement by your organization (referred to as the "**EPA**") that it had issued a Notice of Violation ("**NOV**") in respect of the 3.0L V6 vehicles on 2 November 2015.

Our request

We understand that the EPA, specifically the Office of E nforcement and Compliance Assurance, has legal responsibility for oversight and enforcement of US environmental laws, including the Clean Air Act, 42 USC 7401-7671q, and its implementing regulations.

We would be grateful for copies of any public statemen ts made by the EPA in relation to Volkswagen, Audi, Skoda and Porsche's conduct.

We would also be grateful if you could indicate the status of any investigation s conducted by the EPA, and provide us with copies of any results or findings that have been r eached by the EPA.

Further, we understand from public statements that Volkswagen AG , Audi AG, Skoda Auto a.s and Porsche and related organisations (collectively referred to as the "**entities**") have had various communications with your office in relation to Volkswagen diesel ve hicles with type EA 189 engines and 3.0 V6 TDI engines.

Accordingly, we would be grateful if you could provide us with copies of any such correspondence, including any of the following:

1. Any plan of measures submitted by the entities to the EPA, as well as technical solutions for the removal of the defeat device and restoration of the models in accordance with the legal regulations.

2. Any response from the EPA to such measures, including any approvals granted for any technical solutions.

3. The results of any testing conducted by or on behalf of the entities, submitted to the EPA.

If you would like to discuss this further please contact Karla Deane on 0011 617 3016 0374 or Jason Geisker on 0011 612 8267 0916.

We are grateful for your cooperation and look forward to hearing from you at your earliest convenience.

Yours faithfully



Jason Geisker
MAURICE BLACKBURN

Schedule

Part A - Affected Vehicles in Proceedings

Volkswagen

List of Affected Vehicles
VW Jetta 1.6 TDI/ 2.0 TDI (2009 – 2015)
VW Jetta Sportswagen (2009 – 2015)
VW Golf 1.6 TDI/ 2.0 TDI (2010 – 2013)
VW Gold Wagon 1.6 TDI/ 2.0 TDI (2009-2013)
VW Beetle 2.0 TDI (2012 - 2015)
VW Beetle Convertible 2.0 TDI (2012 – 2015)
VW Passat 2.0 TDI (2008 – 2015)
VW Passat CC 2.0 TDI (2008 – 2012)
VW Polo 1.6 TDI (2009 – 2014)
VW CC 2.0 TDI (2011 – 2015)
VW Eos 2.0 TDI (2008 – 2014)
VW Tiguan 2.0 TDI (2008 – 2015)
VW Caddy 1.6 TDI / 2.0 TDI (2010 – 2015)
VW Amarok 2.0 TDI (2011 – 2012)

Audi

List of Affected Vehicles
Audi A3 (2010 – 2015)
Audi A1 1.6 TDI (2011 – 2014)
Audi A3 1.6 TDI (2011 – 2013)
Audi A3 2.0 TDI (2009 -2013)
Audi A4 2.0 TDI (2008 – 2015)
Audi A5 2.0 TDI (2012 – 2016)
Audi A6 2.0 TDI (2009 – 2014)
Audi Q3 2.0 TDI (2012 – 2014)
Audi Q5 2.0 TDI (2009 – 2016)
Audi TT 2.0 TDI (2009 – 2014)

Skoda

List of Affected Vehicles
Skoda Octavia 1.6 TDI / 2.0 TDI (2008 – 2013)
Skoda Superb 2.0 TDI (2009 - 2015)
Skoda Roomster (2009 – 2010)
Skoda Yeti 2.0 TDI (2012 – 2015)
Skoda Superb (2015)
Skoda Alhambra (2015)

Part B – 3.0 L Vehicles

2013-2016 Porsche Cayenne;
2013-2016 Volkswagen Touareg;
2009-2016 Audi Q5;
2009-2016 Audi A6;
2009-2016 Audi Q7;
2009-2016 Audi A7; and
2009-2016 Audi A8.

NOTICE OF FILING

This document was lodged electronically in the FEDERAL COURT OF AUSTRALIA (FCA) on 20/11/2015 12:38:06 AM AEDT and has been accepted for filing under the Court's Rules. Details of filing follow and important additional information about these are set out below.

Details of Filing

Document Lodged:	Statement of Claim - Form 17 - Rule 8.06(1)(a)
File Number:	NSD1459/2015
File Title:	Alister Dalton & Anor v Volkswagen AG & Anor
Registry:	NEW SOUTH WALES REGISTRY - FEDERAL COURT OF AUSTRALIA

Dated: 20/11/2015 10:38:02 AM AEDT

Registrar

Important Information

As required by the Court's Rules, this Notice has been inserted as the first page of the document which has been accepted for electronic filing. It is now taken to be part of that document for the purposes of the proceeding in the Court and contains important information for all parties to that proceeding. It must be included in the document served on each of those parties.

The date and time of lodgment also shown above are the date and time that the document was received by the Court. Under the Court's Rules the date of filing of the document is the day it was lodged (if that is a business day for the Registry which accepts it and the document was received by 4.30 pm local time at that Registry) or otherwise the next working day for that Registry.

Form 17
Rule 8.05(1)(a)

Statement of claim

No. of 20 15

Federal Court of Australia
District Registry: NSW
Division: General

Alister Dalton and another
Applicants

Volkswagen AG and another
Respondents

STATEMENT OF CLAIM

PART A. THE PARTIES

The proceeding

1. This Proceeding is commenced as a Representative Proceeding pursuant to Part IVA of the *Federal Court of Australia Act 1976* (Cth) by the First Applicant, Alister Dalton, on his own behalf, the Second Applicant, Joanna Dalton, on her own behalf and on behalf of the Group Members (as defined in paragraph 2 below).

The Applicants and other Group Members

2. The First and Second Applicants (**the Applicants**) and the persons whom they represent (**the Group Members**) are persons who:

   a. acquired prior to 18 September 2015 an interest in an affected VW diesel vehicle (as defined in paragraph 35 below); and

Filed on behalf of (name & role of party) The Applicants
Prepared by (name of person/lawyer) Jason Geisker
Law firm (if applicable) Maurice Blackburn Pty Ltd
Tel (02) 9261 1488 Fax (02) 9261 3318
Email jgeisker@mauriceblackburn.com.au
Address for service (include state and postcode) Level 32, 201 Elizabeth Street, Sydney NSW 2000

[Form approved 01/08/2011]

b. still had an interest in that vehicle as at 18 September 2015,

but not including:

c. the Respondents , or any wholly or partly owned subsidiary of either of the Respondents;

d. any Volkswagen authorised dealer; or

e. any Judge of the Federal Court of Australia

(**the Group**).

Particulars

(i) *On or about 28 June 2011, the First Applicant, Mr Dalton, purchased a diesel Volkswagen VW Passat wagon 125TDI Highline from a VW dealership in Newcastle, NSW;*

(ii) *On the same day, the Second Applicant , Ms Dalton, purchased a diesel Volkswagen Golf Comfortline 103TDI DSG from the same VW dealership in Newcastle, NSW;*

(iii) *In the case of the Group Members, particulars of acquisition may be provided following the resolution of common questions.*

3. As at the date of the commencement of this proceeding there were seven or more Group Members.

The Respondents

4. The First Respondent, Volkswagen AG (**VW AG**), at all material times:

a. is and was a company incorporated pursuant to the laws of and registered in the Federal Republic of Germany and capable of being sued;

b. is and was a foreign corporation within the meaning of s 4 of the *Trade Practices Act 1974* (Cth) (**TPA**);

c. is and was a corporation within the meaning of s 4 of the *Competition and Consumer Act 2010* (Cth) (the **CCA**);

d. is and was a foreign corporation within the meaning of s 4 of the CCA;

VW FOIA, EPA 06/20/2017 2017-FFP_038615

e. is and was a corpo ration within the meaning of s 5 of the *Motor Vehicle Standards Act 1989* (Cth) (the **Motor Vehicle Standards Act**);

f. is and was the parent company of the Second Respondent;

g. manufactured the affected VW diesel vehicles (as defined in paragraph 35), for the purpose of their supply to consumers in Australia;

h. is and was a "manufacturer" of the affected VW diesel vehicles within the meaning of s 74A of the TPA and s 7 of the *Australian Consumer Law* (**ACL**) being Schedule 2 of the CCA;

i. supplied affected VW diesel vehicles to Australia;

j. further or alternatively, distributed affected VW diesel vehicles in Australia;

k. further or alternatively, advertised and promoted affected VW diesel vehicles in Australia;

l. supplied new vehicles within the meaning of the Motor Vehicle Standards Act;

m. is and was subject to the TPA and the ACL because:

(i) VW AG was carrying on a business in Australia;

(ii) further or alternatively, the conduct pleaded in paragraphs 4(i) to (k) occurred in Australia;

(iii) further or alternatively, by affixing compliance plates to the affected VW diesel vehic les supplied in Australia, VW AG made the VW Compliance Representation (as pleaded in paragraph 50) in Australia; and

n. further, or alternatively, is and was in the business of marketing and distributing automotive products including the affected VW diesel vehicles, internationally and in Australia, but did not have a place of business in Australia.

5. The Second Respondent, Volkswagen Group Australia Pty Ltd ACN 093 117 876 (**VW Australia**), at all material times:

a. is and was a company registered pursuant to th e *Corporations Act 2001* (Cth) (**Corporations Act**) and capable of being sued;

VW FOIA, EPA 06/20/2017 2017-FFP_038616

b. is and was a trading corporation within the meaning of s 4 of the TPA;

c. is and was a corporation within the meaning of s 4 of the CCA;

d. is and was a corpo ration within the meaning of s 5 of the Motor Vehicle Standards Act;

e. is and was a "manufacturer" of the affected VW diesel vehicles (as defined in paragraph 35), within the meaning of s 74A of the TPA and s 7 of the ACL being Schedule 2 of the CCA, on the basis that:

(i) VW Australia held itself out to Australian consumers as the manufacturer of VW diesel vehicles; and/or

(ii) VW AG did not have a place of business in Australia and VW Australia imported VW diesel vehicles into Australia.

f. is and was a "supplier", within the meaning of s 4 of the TPA and ss 4 and 4C of the CCA and s 2 of the ACL, of the affected VW diesel vehicles;

g. distributed affected VW diesel vehicles in Australia;

h. further or alternatively, advertised and promoted affected VW diesel vehicles in Australia;

i. imported and supplied new vehicles within the meaning of the Motor Vehicle Standards Act, including the affected VW diesel vehicles;

j. is and was a wholly-owned subsidiary of VW AG; and

k. is and was in the business of marketing, importing and distributing automotive products including the affected VW diesel vehicles in Australia.

6. The Respondents are, and were at all material times, related parties within the meaning of s 50 the *Corporations Act 2001 (Cth)*.

PART B. COMPLIANCE REGIME FOR NEW CARS SOLD IN AUSTRALIA

Motor Vehicle Standards Act

7. At all material times, the Motor Vehicle Standards Act prohibited a person from supplying to the market a new vehicle that did not comply with national standards and

VW FOIA, EPA 06/20/2017 2017-FFP_038617

prohibited a person from supplying to the market a vehicle that did not have fitted an identification plate of a type prescribed by the Motor Vehicle Standards Act , namely a plate certifying compliance with those national standards (**compliance plate**).

Particulars

(i) *Motor Vehicle Standards Act ss 10(1) and 14.*

8. At all material tim es, the Motor Vehicle Standards Act prohibited the importation of a new road vehicle that did not comply with national standards and prohibited the importation of a new road vehicle that did not have a compliance place fitted.

Particulars

(i) *Motor Vehicle Standards Act s 18.*

9. At all material times, the Motor Vehicle Standards Act:

a. required the importer of a road vehicle to do all things reasonable and necessary to ensure that when the vehicle was supplied to market it still complied with national standards and still had a compliance plate fitted;

b. prohibited the importer from modifying the vehicle in any way that made it not comply with national standards.

Particulars

(i) *Motor Vehicle Standards Act s 17.*

National Standards – Australian Design Rule 79

10. At all mater ial times, Australian Design Rule 79 was a national standard for the purposes of the Motor Vehicle Standards Act (**Australian Design Rules** or **ADR**).

Particulars

(i) *The making of national standards is provided for in s 7 of the Motor Vehicle Standards Act which empowers the Minister to determine vehicle standards for road vehicles or vehicle components.*

(ii) *ADR 79/00 was originally determined in Road Vehicle (National Standards) Determination No 2 of 1999.*

(iii) *ADR 79/00 was remade in December 2005 as Vehicle Standard ADR 79/00 – Emission Control for Light Vehicles) 2005, to comply with the requirements of the Legislative Instruments Act 2003.*

(iv) *The applicable versions of ADR 79 were:*

1. *Vehicle Standard (ADR 79/01 – Emission Control for Light Vehicles) 2005;*

2. *Vehicle Standar d (ADR 79/02 – Emission Control for Light Vehicles) 2005; and*

3. *Vehicle Standard (ADR 79/03 – Emission C ontrol for Light Vehicles) 2011.*

11. At all material times, the Australian Design Rules were a mandatory safety standard for the purposes of s 65C of the TPA and 106 of the ACL.

Particulars

(i) *At relevant times during the currency of the TPA, pursuant to s 41 of the Motor Vehicle Standards Act, a national standard was taken to be a prescribed consumer product safety standard for the purposes of s 65C of the TPA;*

(ii) *Pursuant to s 41 of the Motor Vehicle Standards Act, a national standard is taken to be a safety standard for the purposes of s 106 of the ACL.*

12. At all material times, Australian Design Rule 79 was applicable to the affected VW diesel vehicles, being M and N category vehicles with a Gross Vehicle Mass less than or equal to 3.5 tonnes.

Particulars

(i) *Australian Design Rule 79/01, 79/02 and 79/03, reg 2.1.*

13. At all material times, ADR 79 applied to the affected VW diesel vehicles as follows:

a. ADR 79/01: new mod el VW diesel vehicles manufactured between 1 January 2006 and 30 June 2008 and all other VW diesel vehicles manufactured between 1 January 2007 and 30 June 2010;

b. ADR 79/02: new model VW diesel vehicles manufactured between 1 July 2008 and 31 October 2013 and all other VW diesel vehicles manufactured between 1 July 2010 and 31 October 2016;

c. ADR 79/03: new model VW diesel vehicles manufactured between 1 November 2013 and 31 October 2016.

Requirements of ADR 79

14. At all material times, the Australian Design Rules specified maximum permitted levels of exhaust emissions, including nitrogen oxides, depending on the gross vehicle mass of the vehicle.

Particulars

(i) *ADR 79/01, 79/02 and 79/03, Appendix A, rule 5.2.1.*

15. At all material times, pursuant to ADR 79, vehicle manufacturers or their authorised representative were required to apply for Commonwealth approval with regard to exhaust emissions, crankcase emissions, evaporative emissions and durability of pollution control devices.

Particulars

(i) *ADR 79/01, 79/02 and 79/03, Appendix A, rule 3.1;*

(ii) *Approvals were obtained through the Road Vehicle Certification System administered by the Vehicle Safety Standards Branch within the Commonwealth Department of Transport and Regional Services.*

16. From July 2008 onwards, vehicle manufacturers were required to submit a description of the provisions taken to prevent tampering with and modification of the emission control computer.

Particulars

(i) *ADR 79/02 and 79/03, Appendix A, rule 3.1*

17. At all material times, ADR 79 required that the components liable to affect the emission of pollutants be so designed, constructed and assembled as to enable the vehicle, in normal use, despite the vibration to which they may be subjected, to comply with the provisions of ADR 79.

Particulars

(i) *ADR 79/01, 79/02 and 79/03, Appendix A, rule 5.1.1.*

18. At all material times, ADR 79 prohibited the use of a defeat device in a new vehicle.

Particulars

(i) *ADR 79/01, 79/02 and 79/03, Appendix A, rule 5.1.2.1.*

Registration Requirements

19. At all material times, it was an offen ce under State and Territory laws for a person to use a motor vehicle on a road that did not comply with the applicable vehicle standards for the vehicle.

Particulars

(i) *Road Transport (Vehicle Registration) Regulation 2007 (NSW), Reg. 52(1);*

(ii) *Road Safety (Vehicles) Regulations 2009 (Vic), Reg 258(2) (formerly, Road Safety (Vehicles) Regulations 1999 (Vic), Reg 819(3);*

(iii) *Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 2010 (Qld), Reg. 5(1) (formerly Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 1999, Reg. 5(1));*

(iv) *Road Traffic Act 1961 (SA), s 116(1), 117(1) and 118(1);*

(v) *Road Traffic (Vehicles) Regulations 2014 (WA), Reg 232 (formerly, Road Traffic (Vehicle Standards) Regulations 2002, Reg. 8);*

(vi) *Road Transport (Vehicle Registration) Regulation 2000 (ACT), Reg 109(2);*

(vii) *Motor Vehicles (Standards) Regulations (NT), Reg 35;*

(viii) *Vehicles and Traffic (Vehicle Standards) Regulations 2014 (Tas), Reg 4(1)(a) (formerly, Vehicles and Traffic (Vehicle Standa rds) Regulation 2001 (Tas), Reg 4(1)(a).*

VW FOIA, EPA 06/20/2017 2017-FFP_038621

20. At all material times, ADR 79 applied to the design and construction of motor vehicles and accordingly was an applicable vehicle standard for the purposes of State and Territory laws.

Particulars

(i) *Road Transport (V ehicle Registration) Regulation 2007 (NSW), Schedule 2, clause 11 and 12;*

(ii) *Road Safety (Vehicles) Regulation 2009 (Vic), Schedule 2, clause 19 and 20 (formerly, Road Safety (Vehicles) Regulations 1999 (Vic), Schedule 8, clause 19 and 20);*

(iii) *Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 2010 (Qld), Schedule 1, clause 7 and 8 (formerly, Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 1999 (Qld), Schedule 1, clause 7 and 8);*

(iv) *Road Traffic (Light Vehicle Standards) Rules 2013 (SA), Reg 19 and 20 (formerly, Road Traffic (Light Vehicle Standards) Rules 1999 (SA), Reg. 19 and 20);*

(v) *Road Traffic (Vehicles) Regulations 2014 (WA), Reg 236 and 238 (formerly, Road Traffic (Vehicle Standards) Rules 2 002 (WA) Rule 13 and 14, respectively);*

(vi) *Road Transport (Vehicle Registration) Regulation 2000 (ACT), Schedule 1, clause 1.15 and 1.16;*

(vii) *Motor Vehicles (Standards) Regulations - Australian Vehicle Standards Rule (1989) (NT), Reg 19 and 20;*

(viii) *Vehicles and Traffic (Vehicle Standards) Regulation* 2001 *(Tas), Reg 19 and 20.*

21. At all material times, it was an offence under State and Territory laws for a person to use an unregistered motor vehicle on a road.

VW FOIA, EPA 06/20/2017 2017-FFP_038622

Particulars

(i) *Road Transport Act 2013 (NSW), s 68(1) (formerly, Road Transport (Vehicle Registration) Act 1997, s 18;*

(ii) *Road Safety Act 1986 (Vic), s 7(1);*

(iii) *Transport Operations (Road Use Management —Vehicle Registration) Regulation 2010 (QLD), Reg. 11 (formerly Transport Operations (Road Use Management – Vehicle Regist ration) Regulation 1999 (Qld), Reg 13;*

(iv) *Motor Vehicles Act 1959 (SA), s. 9;*

(v) *Road Traffic (Vehicles) Act 2012 (WA), s. 4 (formerly, Road Traffic Act 1974 WA, s 15);*

(vi) *Road Transport (Vehicle Registration) Act 1999 (ACT), s. 18(1);*

(vii) *Traffic Act NT, s. 33(1);*

(viii) *Vehicle and Traffic Act 1999 (Tas), s. 127(1).*

22. At all material times, for a motor vehicle to be eligible for registration without conditions under State and Territory laws, it was required to comply with the applicable vehicle standards for the vehicle.

Particulars

(i) *Road Transport (Vehicle Registration) Regulation 2007 (NSW), Reg. 6(1);*

(ii) *Road Safety (Vehicles) Regulation 2009 (Vic), Reg. 14(1) and 29(1) (formerly Road Safety (Vehicles) Regulations 1999 (Vic) Reg. 202(1) and 214(1), respectively);*

(iii) *Transport O perations (Road Use Management —Vehicle Registration) Regulation 2010 (QLD), Reg. 9 (formerly, Transport Operations (Road Use Management —Vehicle Registration) Regulation 1999 (QLD), Reg. 8);*

(iv) *Motor Vehicles Act 1959 (SA), s 24(1);*

(v) *Road Traffic (Vehicles) Re gulations 2014 (WA), Reg. 34 (formerly, Road Traffic (Licensing) Regulations 1975, Reg 9(2));*

(vi) *Road Transport (Vehicle Registration) Regulation 2000 (ACT), Reg. 26(1);*

(vii) *Motor Vehicles Act (NT), s. 8(a);*

(viii) *Vehicle and Traffic (Driver Licensing and Vehicle Regis tration) Regulations 2010 (Tas), Reg. 52(1) (formerly, Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2000 (Tas), Reg. 45(1)).*

23. At all material times, an application for registration or renewal of registration could be refused under State and Territory laws if the vehicle did not comply with the applicable vehicle standards.

Particulars

(i) *Road Transport (Vehicle Registration) Regulation 2007 (NSW), Reg 6(1), 12(1) and 30(7);*

(ii) *Road Safety (Vehicles) Regulation 2009 (Vic), Reg 14(1), 29(1) and 69(4) (formerly Road Safety (Vehicles) Regulations 1999 (Vic) Reg 202, 214(1) and 227(7), respectively);*

(iii) *Transport Operations (Road Use Management —Vehicle Registration) Regulation 2010 (QLD), Reg. 17(1) and 43(11) (formerly, Transport Operati ons (Road Use Management —Vehicle Registration) Regulation 1999 (QLD), Reg. 14(1) and 37(11), respectively);*

(iv) *Motor Vehicles Act 1959 (SA), s 24(3);*

(v) *Road Traffic (Vehicles) Act 2012 (WA), s 5(3)(a)(i) (formerly, the Road Traffic Act 1974 (WA), s. 17(2));*

(vi) *Road Transport (Vehicle Registration) Regulation 2000 (ACT), Reg 26(1), 32(1)(a) and 68(9)(a);*

(vii) *Motor Vehicles Act (NT), s 8;*

(viii) *Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2010 (Tas), Reg 57(1) , 59(2) and 68(2) (formerly, Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2000 (Tas), Reg. 49(1) , 51(2)(a) and 60(2), respectively).*

24. At all material times, a motor vehicle's registration could be suspended or cancelled under State and Territory laws if the veh icle did not comply with the applicable vehicle standards.

Particulars

(i) *Road Transport (Vehicle Registration) Regulation 2007 (NSW), Reg 41(1);*

(ii) *Road Safety (Vehicles) Regulation 2009 (Vic), Reg. 114(b) , 115(1) and 117 (formerly Road Safety (Vehicles) Regu lations 1999 (Vic) Reg. 245(1)(b) and 245(2), respectively);*

(iii) *Transport Operations (Road Use Management —Vehicle Registration) Regulation 2010 (QLD), Reg 58 (1) and (2) (formerly, Transport Operations (Road Use Management —Vehicle Registration) Regulation 1999 (QLD), Reg. 48(1) and (2));*

(iv) *Motor Vehicles Act 1959 (SA), s 55A(1);*

(v) *Road Traffic (Vehicles) Act 2012 (WA), s 9 (1) and (2) (formerly, the Road Traffic Act 1974 (WA), s. 23A);*

(vi) *Motor Vehicles Act (NT), s 102(2)(c);*

(vii) *Vehicle and Traffic (Driver Licensing and V ehicle Registration) Regulations 2010 (Tas), Reg 52(1)(a) and 72(1)(b) (formerly, Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2000 (Tas), Reg. 45(1)(a) and 64(1)(b)).*

25. At all material times, a motor vehicle's registration cou ld be refused or suspended or cancelled if, at the relevant time:

a. under NSW laws:

(i) the vehicle is not an eligible vehicle;

(ii) the relevant authority reasonably believes that information given in the application for registration is false or misleading;

(iii) a defec t notice issued in relation to the vehicle ha s not been complied with and the date for compliance specified in the notice ha s expired;

(iv) the relevant authority reasonably believes that the ownership, possession, control or description of the registrable vehi cle (or of any part of the registrable vehicle) as recorded on the Register is uncertain;

(v) the registration has been issued erroneously;

b. under Victorian laws:

(i) the vehicle is not eligible for registration;

(ii) the relevant authority reasonably believes that inf ormation given in the application is false or misleading;

(iii) the relevant authority reasonably believes that the vehicle or part of the vehicle has, or may have, been illegally imported;

(iv) a vehicle defect notice relating to the vehicle has not been complied with and the date for compliance specified in the notice has expired;

(v) the relevant authority reasonably believes the ownership, possession, control or description of the vehicle as recorded on the register is uncertain;

(vi) the relevant authority reasonably beli eves the vehicle or part of the vehicle has, or may have, been illegally imported;

c. under Queensland laws:

(i) the relevant authority reasonably believes information given in the application is false or misleading;

(ii) the approval was issued because of a document or representation that is false or misleading or obtained or made in another improper way;

(iii) a defect notice issued in relation to the vehicle has not been complied with and the date for compliance specified in the notice had expired;

d. under South Australian laws:

(i) the relevant authority reasonably believes that information disclosed in the application for registration or any evidence provided by the applicant is or may be inaccurate, incomplete or misleading;

(ii) the relevant authority reasonably believes that information recorded in the register of motor vehicles in relation to the vehicle is or may be inaccurate, incomplete or misleading;

(iii) the vehicle was registered in error;

(iv) the vehicle has been suspended and the reason for suspension still exists following a period of notice;

e. under Australian Capital Territory laws:

(i) the vehicle is not an eligible vehicle;

(ii) the relevant authority believes on reasonable grounds that information given in, or in relation to, the application for registration is false, misleading or incomplete in a material particular;

(iii) a defect notice issued in relation to the vehicle has not been complied with and the date for compliance specified in the notice has expired;

(iv) the ownership, possession, control or description of the vehicle as recorded in the register is uncertain;

(v) the vehicle has been registered in error;

f. under Northern Territory laws:

(i) the registration of a motor vehicle has been obtained by fraud or deception;

(ii) the motor vehicle has been registered in error;

(iii) a defect notice issued in relation to the vehicle has not been complied with and the date for compliance or to show reasonable cause has expired;

g. under Tasmanian laws:

(i) the relevant authority reasonably believes that information given in or in relation to the application for registration is false or misleading;

(ii) the vehicle has been registered in error;

(iii) the vehicle is no longer eligible for registration;

(iv) the responsibility for the vehicle or the description of the vehicle as recorded in the register of motor vehicles and trailers is uncertain;

(v) a vehicle defect notice has been issued in respect of the vehicle, the time for compliance with the notice has passed, and the notice has not been complied with.

Particulars

(i) *Road Transport (Vehicle Registration) Regulation 2007 (NSW), reg 12(1) and 41(1);*

(ii) *Road Safety (Vehicles) Regulation 2009 (VIC), reg 29, 69(4), 114 and 117 (formerly, Road Safety (Vehicles) Regulations 1999 (VIC) reg 214(2), 227(7), 245(1) and 245(2), respectively);*

(iii) *Transport Operations (Road Use Management) Act 1995 (QLD) s 18(1) and Transport Operations (Road Use Management —Vehicle Registration) Regulation 2010 (QLD), Reg. 17(1) and Schedule 7, clause 1 (formerly, Transport Operations (Road Use Management — Vehicle Registration) Regulation 1999 (QLD), reg 47);*

(iv) *Motor Vehicles Act 1959 (SA), s 24(3) and 55A(1);*

(v) *Road Transport (Vehicle Registration) Regulation 2000 (ACT), reg 32(1), 84(1);*

(vi) *Motor Vehicles Act (NT), s 102(2), 128A(14);*

(vii) *Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2010 (TAS), reg 57(2), 6 8(2) and 72(1) (formerly, Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2000 (TAS), reg 49(2) and 60(2), respectively).*

26. At all material times, State and Territory laws gave authorised officers and police officers the power to inspect a motor vehicle to determine if it complied with the applicable vehicle standards, and on discovering that it did not, the power to:

a. issue a warning or a defect notice;

b. impose conditions on the use of the vehicle; or

c. prohibit the use of the vehicle.

Particulars

(i) *Road Transport Act 2013 (NSW), s 76 (4) (formerly, Road Transport (Vehicle Registration) Act 1997 s 26 (2)) and the Road Transport (Vehicle Registration) Regulation 2007 (NSW), Reg 70;*

(ii) *Road Safety Act 1986 (VIC), s 13(2) and 14;*

(iii) *Transport O perations (Road User Management) Act 1995 (Qld) s 34(2), s 36(1) and Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 2010 (Qld), Reg 8 (formerly, Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 1999, Reg. 14);*

(iv) *Road Traffic Act 1961 (SA), s 40Q(2) and 145;*

(v) *Road Traffic (Administration) Act 2008 (WA), s 52(2) and Road Traffic (Vehicles) Act 2012 (WA), s 71(1) (formerly Road Traffic (Vehicle Standards) Regulations 2002, Reg 61 and 62(1));*

(vi) *Road Transport (Vehicle Registration) Act 1999 (ACT), s 25;*

(vii) *Motor Vehicles Act (NT), ss 128 and 128A;*

(viii) *Vehicles and Traffic Act 1999 (Tas), s 49(1)(f) and Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2010 (Tas), Reg. 85 (fo rmerly, Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2000 (Tas), Reg. 68).*

PART C. DEFEAT DEVICES INSTALLED IN VW VEHICLES

27. During the period from approximately 200 8 to 2015, VW AG installed in certain VW diesel vehicles a fo rm of software in the vehicle's management system designed to detect when the vehicle was undergoing an emissions test and activate or maximise emissions control systems in the vehicle so as to reduce the output of nitrogen oxide in a way that did not occu r, or did not occur to the same extent, in ordinary use of the vehicle or in ordinary driving conditions (**defeat device**).

Particulars of the number of affected vehicles

(i) *On about 22 September 2015, VW AG announced that approximately 11 million vehicles wer e affected by the defeat device issue worldwide;*

(ii) *On about 7 October 2015, VW Australia announced that 77,149 affected vehicles had been sold in Australia. Two days later, on about 9 October 2015, VW Australia revised this figure upwards to 83,593 vehicles;*

(iii) *Further particulars of the exact number of vehicles sold in Australia with the defeat device installed , and its operation, will be supplied in due course, including following discovery.*

28. Under ordinary driving conditions, the defeat device de-activated parts of the vehicle's emission control system, or reduced the effectiveness of the emission control system, with the result that the vehicle's performance was enhanced but the vehicle emitted higher levels of nitrogen oxide.

29. Prior to 3 September 2015, VW AG had concealed from consumers and regulators that it had installed a defeat device in certain VW diesel vehicles, and the effect of that defeat device.

30. VW AG's concealment of the installation of the defeat device was deliberate.

31. A purpose and function of the defeat device was to convince regulators who tested the emission levels of VW vehicles fitted with the defeat device , or alternatively relied on test data submitted to them as to those emission levels, that these vehicles had lower emissions of nitrogen oxide in ordinary use than was the case.

32. Further, a purpose and function of the defeat device was to convince relevant regulators who tested the emission levels of VW vehicles fitted with the defeat device that th ose vehicles complied with relevant e mission control restrictions for nitrogen oxide, when this was not the case.

Particulars

The relevant emission control restrictions include:

(i) *European emissions standards, Euro IV (commenced January 2005), Euro V (commenced September 2011) and Euro VI (commenced September 2014);*

(ii) *United States EPA emissions standards and Californian LEV -II standards;*

(iii) *Australian standards ADR 79.*

33. The emission control systems that are activated or maximised by the defeat device , when the device detects an emission test , operate so as to reduce nitrogen oxide emissions, but , if activated or maximised in ordinary driving conditions would reduce nitrogen oxide emissions at the expense of vehicle performance, fuel economy.

34. A purpose and function of the defeat device was to pers uade relevant regulators and consumers that VW vehicles fitted with such a device had a combination of emissions control, performance and fuel economy that was in fact impossible for that vehicle to achieve in ordinary use or ordinary driving conditions.

PART D. AFFECTED VW DIESEL VEHICLES IN AUSTRALIA

35. At all material times , VW AG manuf actured for sale in Australia the following types of diesel vehicles which were fitted with a four cylinder "EA 189" 1.6L or 2.0L engine and which contained a defeat device (as defined in paragraph 27 above) (the **affected VW diesel vehicles**):

a. Golf (including Golf Wagon);

b. Polo;

c. Jetta;

d. Passat CC;

e. Volkswagen CC;

f. Passat;

g. Eos;

h. Tiguan;

i. Caddy; and

j. Amarok.

Defeat device

36. At all material times, VW AG was aware that the affected VW diesel vehicles had a defeat device.

37. At all material times, VW AG was aware that the purpose and function of the defeat device was as pleaded in paragraphs 31 to 34 above.

38. At all material times, VW Australia was aware that the affected VW diesel vehi cles, or alternatively some of the affected VW diesel vehicles, had a defeat device.

39. At all material times, VW Australia was aware that the purpose and function of the defeat device was as pleaded in paragraphs 31 to 34 above.

40. By reason of the matters ple aded in paragraphs 27 and 28 , the affected VW diesel vehicles failed to comply with the requirements of ADR 79 in the following respects:

a. under ordinary driving conditions, the affected VW diesel vehicles emitted levels of nitrogen oxide that exceeded the emission limits in ADR 79;

b. the components of the EA 189 engine liable to affect the emission of pollutants, and therefore the EA 189 engine itself, were not designed, constructed and

VW FOIA, EPA 06/20/2017 2017-FFP_038632

assembled as to enable the vehicle, in normal use, to comply with the p rovisions of ADR 79;

c. the defeat device was a defeat device within the meaning of ADR 79, the installation of which was in contravention of ADR 79.

Particulars

(i) *In or about May 2014, independent researchers at the Centre for Alternative Fuels, Engines and Em issions at West Virginia University (WVU) conducted an emissions study on vehicles including a Volkswagen 2012 Jetta and a 2013 Passat with an EA 189 engine . The study was commissioned by the International Council for Clean Transportation. The emissions te sting of the two Volkswagen vehicles revealed nitrogen oxide emissions of between 0.344 and 1.505 g/km, depending on drive conditions , which exceed the maximum levels permitted under ADR 79;*

(ii) *On or about 3 September 2015 , VW AG admitted that four cylinder diesel vehicles from model years 2009 to 2015 contained the defeat device;*

(iii) *On or about 3 October 2015, the VW Australia suspended the sale of vehicles fitted with 1.6L or 2.0L EA189 diesel engines in Australia;*

(iv) *The website for Volkswagen.com.au contains the following information under the heading 'Diesel Information':*

> *"As you may be aware, there have been press reports about the emissions of a selection of Volkswagen diesel vehicles.*
>
> *Volkswagen Australia deeply regrets these issues and wants to ensure that our owners are well -informed about our action plan and next steps regarding this topic.*
>
> *Is my vehicle affected?*
>
> *If you currently own a 1.6L or 2.0L 4 cylinder TDI Volkswagen, your vehicle may be affected.*
>
> *Q: What is the problem on the affected vehicles?*

VW FOIA, EPA 06/20/2017 2017-FFP_038633

A: The emission levels may not meet the regulatory requirements when the affected vehicle is driven under normal conditions;

(v) *Further particulars may be provided following discovery.*

Compliance plates fixed to affected VW diesel vehicles

41. Notwithstanding the matters pleaded in paragraphs 27 to 34, in purported compliance with Australian Design Rule 79, VW AG, and further or alternatively VW Australia, sought and obtained approval from the Commonwealth to fix compliance plates to affected VW diesel vehicles.

42. VW AG, and further or alternatively VW Australia, in seeking approval from the Commonwealth to fix compliance plates to affected VW diesel vehicles, did not disclose:

    a. that the affected VW diesel vehicles were fitted with defeat devices, contrary to ADR 79 as pleaded above in paragraph 40;

    b. that the affected VW diesel vehicles did not comply with ADR 79 as pleaded in paragraph 40 above.

43. Having obtained approval from the Commonwealth to do so, VW AG, and further or alternatively, VW Australia, fitted the affected VW diesel vehicles with compliance plates prior to their supply, distribution or sale.

Affected VW Diesel Vehicles Failed to Comply with Registration Requirements

44. By failing to comply with ADR 79, the affected VW diesel vehicles failed to comply (and continue to fail to comply) with the requirements for registration under the relevant State and Territory regulations.

45. By reason of the matters pleaded in the previous paragraph, the affected VW diesel vehicles were not and are not lawfully able to be registered in Australia, or driven on public roads in Australia, at any time.

PART E. MISLEADING OR DECEPTIVE CONDUCT

46. The conduct of VW AG and VW Australia as pleaded in this Statement of Claim was conduct in trade and commerce.

47. At all material times, affected VW diesel vehicles were:

VW FOIA, EPA 06/20/2017 2017-FFP_038634

a. "goods" within the meaning of s 4 of the TPA and s 2 of the ACL, in that they were vehicles;

b. "goods" within the meaning of s 74A(2)(a) of the TPA, in that they were goods of a kind ordinarily acquired for personal, domestic or household use;

c. "consumer goods" within the meaning of s 2 of the ACL, in that they were goods that were intended to be used, and were of a kind likely to be used, for personal, domestic or household use or consumption.

48. At all material time s, the Applicant s and Group Members acquired the affected VW diesel vehicles as consumers, within the meaning of s 4B of the TPA in that:

a. the amount paid to acquire the affected VW diesel vehicles did not exceed $40,000; or

b. the affected VW diesel vehicles were of a kind ordinarily acquired for personal, domestic or household use; or

c. the affected VW diesel vehicles were acquired for use principally in the transport of goods on public roads.

49. At all material times, the Applicant s and Group Members acquired the affected VW diesel vehicles as consumers, within the meaning of s 3 of the ACL, in that:

a. the amount paid to acquire the affected VW diesel vehicles did not exceed $40,000; or

b. the affected VW diesel vehicles were of a kind ordinarily acquired for personal, domestic or household use; or

c. the affected VW diesel vehicles were acquired for use principally in the transport of goods on public roads.

VW Compliance Representation by VW AG/VW Australia

50. By the conduct pleaded in paragraphs 4(g), (i) to (k) above, VW A G manufactured, supplied and otherwise dealt with the affected VW diesel vehicles as vehicles that were for use as road vehicles in Australia, and further or alternatively affixed a compliance plate certifying compliance with Australian vehicle standards, and thereby made a representation to all persons acquiring or dealing with the affected VW diesel vehicles

VW FOIA, EPA 06/20/2017 2017-FFP_038635

that the affected VW diesel vehicles complied with the applicable legal requirements for road vehicles in Australia (**the VW Compliance Representation**).

51. Further, or alternatively, by the conduct pleaded in paragraphs 5(g) and (h) above, VW Australia distributed, promoted and otherwise dealt with the affected VW diesel vehicles as vehicles that were for use as road vehicles in Australia, and that had affixed a compliance plate certifying compliance with Australian vehicle standards, and thereby made the VW Compliance Representation.

52. The Applicants and Group Members purchased or otherwise acquired interests in the affected VW diesel vehicles because of the VW Compliance Representation.

53. By reason of the matters pleaded above in paragraph 40, the VW Compliance Representation was false or misleading.

54. By reason of the conduct pleaded in paragraphs 50 and 53, VW AG engaged in conduct in trade or commerce that was misleading or deceptive, or alternatively was likely to mislead or deceive, in contravention of s 52 of the TPA and s 18 of the ACL.

55. By reason of the conduct pleaded in paragraphs 51 and 53, VW Australia engaged in conduct in trade or commerce that was misleading or deceptive, or alternatively was likely to mislead or deceive, in contravention of s 52 of the TPA and s 18 of the ACL.

VW ADR Compliance Representation by VW AG/VW Australia

56. By reason of the matters pleaded in paragraph 41 above, VW AG, and further or alternatively VW Australia, represented to the Commonwealth that the affected VW diesel vehicles were compliant with ADR 79 (**the VW ADR 79 Compliance Representation**).

Particulars

(i) *The representation was made with respect of each model of affected VW diesel vehicles;*

(ii) *The representation was contained in each application for these models submitted pursuant to rule 3.1 of ADR 79;*

(iii) *Further particulars may be provided following discovery and subpoenas in the proceedings, including production of the relevant applications.*

VW FOIA, EPA 06/20/2017 2017-FFP_038636

57. The Commonwealth relied upon the VW ADR 79 Compliance Representation in:

    a. granting approval to each model of affected VW diesel vehicles in accordance with rule 4 of ADR 79; and

    b. granting approval for VW AG , or further and alternati vely, VW Australia, to fit a compliance plate to each model of affected VW diesel vehicles.

58. By reason of the matters pleaded in paragraph 40 above, the VW ADR 79 Compliance Representation was false and misleading, in that the affected VW diesel vehicles w ere not compliant with ADR 79.

59. By reason of the conduct pleaded in paragraphs 56 and 58, VW AG, and further and alternatively VW Australia, engaged in conduct in trade or commerce that was misleading or deceptive, or alternatively was likely to mislead or deceive, in contravention of s 52 of the TPA and s 18 of the ACL.

Misleading or deceptive silence by VW AG/VW Australia

60. Further or in the alternative, by manufacturing the affected VW diesel vehicles for supply to and sale in Australia , and applying for and obtaining approval to affix compliance plates to those vehicles as pleaded in paragraph 41, VW AG created a reasonable expectation:

    a. on the part of the Commonwealth; and

    b. on the part of persons acquiring an interest in an affected VW diesel vehicle,

    that the affected VW diesel vehicles complied with the applicable legal requirements for road vehicles in Australia.

61. Given that reasonable expectation on the part of the Commonwealth and the persons referred to in the previous paragraph, VW AG's failure to dis close that the affected VW diesel vehicles had been fitted with a defeat device, was misleading or deceptive conduct or conduct that was likely to mislead or deceive in that:

    a. if the Commonwealth had been aware that the affected VW diesel vehicles contained the defeat device, then the Commonwealth would not have approved the affected VW diesel vehicles as complying with ADR 79 and the vehicles would not have been sold in Australia; and

VW FOIA, EPA 06/20/2017 2017-FFP_038637

b. if consumers had been aware that the affected VW diesel vehicles contained the defeat device, then consumers would not have acquired an interest in an affected VW diesel vehicle.

62. By reason of the conduct pleaded in paragraphs 60 and 61, VW AG engaged in conduct in trade or commerce that was misleading or deceptive, or alternatively was likely to mislead or deceive, in contravention of s 52 of the TPA and s 18 of the ACL.

63. Further or in the alternative, by distributing the affected VW diesel vehicles in Australia, and applying for and obtaining Commonwealth approval to affix compliance plates to those vehicles, VW Australia created a reasonable expectation:

a. on the part of the Commonwealth; and

b. on the part of persons acquiring an interest in an affected VW diesel vehicle,

that the affected VW diesel vehicles complied with the applicable legal requirements for road vehicles in Australia.

64. Given that reasonable expectation on the part of the Commonwealth and the persons referred to in the previous paragraph, VW Australia's failure to disclose that the affected VW diesel vehicles had been fitted with a defeat device, was misleading or deceptive conduct or conduct that was likely to mislead or deceive in that:

a. if the Commonwealth had been aware that the affected VW diesel vehicles contained the defeat device, then the Commonwealth would not have approved the affected VW diesel vehicles as complying with ADR 79 and the vehicles would not have been sold in Australia; and

b. if consumers had been aware that the affected VW diesel vehicles contained the defeat device, then consumers would not have acquired an interest in an affected VW diesel vehicle.

65. By reason of the conduct pleaded in paragraphs 63 and 64, VW Australia engaged in conduct in trade or commerce that was misleading or deceptive, or alternatively was likely to mislead or deceive, in contravention of s 52 of the TPA and s 18 of the ACL.

VW FOIA, EPA 06/20/2017 2017-FFP_038638

False and misleading representation

66. Further or in the alternative, by reason of the conduct pleaded in paragraph 50, VW AG made a false or misleading representation in trade or commerce in connection w ith the promotion of the supply of motor vehicles, that the affected VW diesel vehicles:

    a. were of a particular standard and quality, in that VW AG falsely represented that the affected VW diesel vehicles were compliant with applicable legal requirements for road vehicles in Australia, when that was not the case , in contravention of s 53(a) of the TPA and s 29(1)(b) of the ACL;

    b. had certain performance characteristics, uses or benefits, in that VW AG falsely represented that the affected VW diesel vehicles wer e able to be registered and used on public roads in Austra lia, when that was not the case, in contravention of s 53(c) of the TPA and s 29(1)(g) of the ACL.

67. Further or in the alternative, by reason of the conduct pleaded in paragraph 56, VW AG made a false or misleading representation in trade or commerce in connection with the promotion of the supply of motor vehicles, that the affected VW diesel vehicles:

    a. were of a particular standard or quality, in contravention of s 53(a) of the TPA and s 29(1)(b) of the ACL; and

    b. had particular performance characteristics and benefits, contravention of s 53(c) of the TPA and s 29(1)(g) of the ACL,

    in that VW AG falsely represented that the affected VW diesel vehicles produced emissions at a level below the limits specif ied by ADR 79, and that the vehicles' emissions technology would preserve emissions at that level in ordinary driving conditions, when that was not the case.

68. Further or in the alternative, by reason of t he conduct pleaded in paragraph 51, VW Australia mad e a false or misleading representation in trade or commerce in connection with the promotion of the supply of motor vehicles, that the affected VW diesel vehicles:

    a. were of a particular standard and quality, in that VW Australia falsely represented that the affected VW diesel vehicles were compliant with applicable legal requirements for road vehicles in Australia, when that was not the case, in contravention of s 53(a) of the TPA and s 29(1)(b) of the ACL;

VW FOIA, EPA 06/20/2017 2017-FFP_038639

b. had certain performance characteristics, uses or be nefits, in that VW Australia falsely represented that the affected VW diesel vehicles were able to be registered and used on public roads in Australia, when that was not the case, in contravention of s 53(c) of the TPA and s 29(1)(g) of the ACL.

69. Further o r in the alternative, by reason of the conduct pleaded in paragraph 56, VW Australia made a false or misleading representation in trade or commerce in connection with the promotion of th e supply of motor vehicles, that the affected VW diesel vehicles:

a. were of a particular standard or quality, in contravention of s 53(a) of the TPA and s 29(1)(b) of the ACL; and

b. had particular performance characteristics and benefits, contravention of s 53(c) of the TPA and s 29(1)(g) of the ACL,

in that VW Australia falsely represented that the affected VW diesel vehicles produced emissions at a level below the limits specified by ADR 79, and that the vehicles' emissions technology would preserve emissions at that level in ordinary driving conditions, when that was not the case.

PART F. UNCONSCIONABLE CONDUCT

70. The Applicants repeats paragraphs 27 to 37, 40 to 45.

71. The conduct by VW AG referred to in the previous paragraph occurred in circumstances where:

a. VW AG concealed from regulators and from consumers that various VW vehicles, including the affected VW diesel vehicles, had a defeat device;

b. that concealment was deliberate;

c. the purpose and function of the defeat device was as pleaded in paragraphs 31 to 34;

d. that purpose and function was achieved in the case of the Commonwe alth, because the Commonwealth accepted at face value the results of emissions tests conducted by VW AG, or an authorised representative of VW AG, unaware that the affected VW diesel vehicles had a defeat device and that the results

VW FOIA, EPA 06/20/2017 2017-FFP_038640

provided to the Commonw ealth would be unable to be replicated in ordinary driving conditions;

e. VW AG thereby cheated on emissions tests in the process of obtaining regulatory approval to sell the affected VW diesel vehicles in Australia , and thereby obtained approval to sell the affected VW diesel vehicles in Australia as a result of that cheating;

f. the Commonwealth, and thereby consumers, were primarily reliant upon VW AG to conduct any testing with integrity and without devices designed to subvert the testing;

g. VW AG also cheat ed on European emissions tests, in circumstances where affected VW diesel vehicles were advertised in Australia as complying with European emission standards and such compliance was a very relevant matter for consumers in Australia in considering whether t o purchase an affected VW diesel vehicle;

h. consumers in Australia were in a considerably weaker position than VW AG, and had no means of knowing about the existence of the defeat device or that VW AG was engaged in cheating on emissions tests;

i. the presence of the defeat device allowed VW AG to engage in an unfair comparison with other brands of vehicles in favour of VW AG, in that the performance and fuel economy figures that VW AG was able to promote for the affected VW diesel vehicles , and further and alt ernatively the cost of components for the vehicles and thus the final price of the vehicles, were better than they would be if the vehicles did not have the defeat device and were complying at all times with emissions requirements. VW AG therefore engaged in unfair competition in order to garner additional sales and profits;

j. as a consequence of the conduct of VW AG, Australian consumers have purchased large numbers of affected VW diesel vehicles that:

   (i) have higher pollution outputs than consumers would have anticipated;

   (ii) alternatively, have lower performance and/or fuel economy than consumers were told when purchasing their vehicles, if the vehicle is modified so as to reduce excessive pollution;

VW FOIA, EPA 06/20/2017 2017-FFP_038641

Particulars

(i) *On 8 October 2015, the Chief Executive Officer of Volkswagen US said in testimony before the US congress that there may be a performance reduction resulting from the modification to fix the problem of excessive emissions;*

(ii) *Further particulars may be provided following discovery.*

k. in normal operation of the affected VW diesel vehicles, the defeat device operates so as to release significant and unnecessary quantities of pollutants into the atmosphere, thus contributing to poor air quality in Australia and unnecessarily exposing Australians to health risks and health effects, all so that VW AG could make additional sales and profits. VW AG thus deliberately compromised the health and safety of Australians and the quality of the Australian environment for profit.

72. By reason of the matters referred to in the previous paragraph, VW AG, in trade or commerce, engaged in conduct in connection with the supply of goods that was, in all the circumstances, unconscionable, in contravention of s 51AB of the TPA, and s 21 of the ACL.

73. Further or in the alternative, the Applicants repeat paragraphs 27 to 35, 38 to 45.

74. The conduct by VW Australia referred to in the previous paragraph occurred in circumstances where:

a. VW Australia concealed from the Commonwealth and from consumers that various VW vehicles, including the affected VW diesel vehicles, had a defeat device;

b. that concealment was deliberate;

c. the purpose and function of the defeat device was as pleaded in paragraphs 31 to 34 above;

d. VW Australia obtained for itself a benefit flowing from the matters pleaded in paragraph 71 above, including because VW Australia has promoted the affected VW diesel vehicles as compliant with European emissions requirements;

VW FOIA, EPA 06/20/2017 2017-FFP_038642

e. consumers in Australia were in a considerably weaker position than VW Australia, and had no means of knowing about th e existence of the defeat device;

f. the presence of the defeat device allowed VW Australia to engage in an unfair comparison with other brands of vehicles in favour of VW Australia, in that the performance and fuel economy figures that VW Australia was able to promote for the affected VW diesel vehicles, and further and alternatively the cost of components for the vehicles and thus the final price of the vehicles, were better than they would be if the vehicles did not have the defeat device and were complying at all times with emissions requirements. VW Australia therefore engaged in unfair competition in order to garner additional sales and profits;

g. as a consequence of the conduct of VW Australia, Australian consumers have purchased large numbers of affected VW diesel vehicles that:

   (i) have higher pollution outputs than consumers would have anticipated;

   (ii) alternatively, have lower performance and/or fuel economy than consumers were told when purchasing their vehicles, if the vehicle is modified so as to reduce excessive pollution.

Particulars

   (i) *On 8 October 2015, the Chief Executive Officer of Volkswagen US said in testimony before the US congress that there may be a performance reduction resulting from the modification to fix the problem of excessive emissions;*

   (ii) *Further particulars may be provided following discovery.*

h. in normal operation of the affected VW diesel vehicles, the defeat device operates so as to release significant and unnecessary quantities of pollutants into the atmosphere, thus contributing to poor air quality in Australia and unnecessarily exposing Australians to health risks and health effects, all so that VW Australia could make additional sales and profits. By selling affected VW diesel vehicles with the defeat device, VW Australia has thus comp romised, or alternatively deliberately compromised, the health and safety of Australians and the quality of the Australian environment for profit.

VW FOIA, EPA 06/20/2017 2017-FFP_038643

75. By reason of the matters referred to in the previous paragraph, VW Australia, in trade or commerce, engaged in conduct in connection with the supply of goods that was, in all the circumstances, unconscionable, in contravention of s 51AB of the TPA, and s 21 of the ACL.

PART G. FAILURE TO COMPLY WITH STATUTORY WARRANTIES AND GUARANTEES

76. At all material times until 1 January 2010:

    a. VW AG, in trade and commerce, manufactured and supplied the affected VW diesel vehicles to VW Australia, or alternatively, VW dealers and other retailers selling VW vehicles; and

    b. VW dealers and other retailers selling VW vehicles suppl ied the affected VW diesel vehicles to consumers.

77. Further, or alternatively, at all material times until 1 January 2010:

    a. VW Australia, in trade and commerce, manufactured and supplied the affected VW diesel vehicles to VW dealers and other retailers selling VW vehicles; and

    b. VW dealers and other retailers selling VW vehicles supplied the affected VW diesel vehicles to consumers.

78. At material times from 1 January 2010 , affected VW diesel vehicles of which VW AG and/or VW Australia were the manufacturer, were supplied to consumers, in trade and commerce, by Volkswagen dealers and by other retailers selling Volkswagen vehicles, including second hand dealers.

Action in respect of goods of unmerchantable quality: TPA

79. The affected VW diesel vehicles were not of merchantable quality because they:

    a. were unable lawfully to be registered or used on public roads in Australia; and

    b. further or alternatively, possessed a defeat device which prevented the goods from complying with the Australian emissions requirements contain ed in ADR 79, as pleaded above in paragraph 40.

80. Further, the affected VW diesel vehicles were not of merchantable quality because they were not as fit for the purpose of being registered or driven on public roads in Australia,

VW FOIA, EPA 06/20/2017 2017-FFP_038644

being a purpose for which mo tor vehicles are commonly bought, as it was reasonable to expect.

81. As pleaded in paragraphs 88 to 122, the Applicants and Group Members suffered loss or damage by reason of the fact that the affected VW diesel vehicles were not of merchantable quality.

82. Accordingly, by reason of the matters pleaded above in paragraphs 76, and 79 to 81, VW AG is liable to compensate the Applicants and class members for the loss or damage, in accordance with s 74D of the TPA.

83. Further or alternatively, by reason of the matters pleaded above in paragraphs 77, and 79 to 81, VW Australia is liable to compensate consumers for the loss or damage, in accordance with s 74D of the TPA.

Guarantee as to acceptable quality: ACL

84. By reason of the matters pleaded in the paragraph 78, there was a statutory guarantee that the VW diesel vehicles were of acceptable quality, as specified by s 54 of the ACL.

85. By reason of the matters pleaded in 40, the affected VW diesel vehicles failed to comply with the guarantee as to acceptable quality imposed by s 54 of the ACL, in that the vehicles were not of acceptable quality because they:

    a. were unable lawfully to be registered or used on public roads in Australia; and

    b. further or alternatively, possessed a defeat device which prevented the goods from complyi ng with the Australian emissions requirements contained in ADR 79.

86. Further, b y reason of the matters pleaded in paragraph 40, the affected VW diesel vehicles failed to comply with the guarantee as to acceptable quality imposed by s 54 of the ACL, in that the vehicles were not fit for the purposes for which goods of that type are commonly supplied or free from defects, because they:

    a. were unable lawfully to be registered or used on public roads in Australia; and

    b. further or alternatively, possessed a defeat d evice which prevented the goods from complying with the Australian emissions requirements contained in ADR 79, as pleaded above in paragraph 40.

VW FOIA, EPA 06/20/2017 2017-FFP_038645

87. For the purposes of s 271(1) of the ACL, the Applicants and Group Members are affected persons in relation to the affected VW diesel vehicles.

88. Accordingly, by reason of the failure to comply with the guarantee imposed by s 54 of the ACL, the Applicants and Group Members are entitled under s 271 of the ACL to recover damages from VW AG.

89. Further, or alternatively, by reason of the failure to comply with the guarantee imposed by s 54 of the ACL, the Applicants and Group Members are entitled under s 271 of the ACL to recover damages from VW Australia.

Action in respect of non-compliance with express warranty: TPA

90. By reason of placing compliance plates on the affected VW diesel vehicles, VW AG, and further or alternatively VW Australia, in trade and commerce, gave an express warranty, within the meaning of s 74G of the TPA, that the affected VW diesel vehicles complied with the applicable national standards.

91. By reason of the conduct pleaded in paragraph 40, VW AG, and further or alternatively VW Australia, failed to comply with the express warranty it gave or made because the affected VW diesel vehicles failed to comply with ADR 79, which was a national standard for the purposes of the Motor Vehicle Standards Act.

92. As pleaded below in paragraphs 118 to 122 below, the Applicants and Group Members suffered loss or damage by reason of VW AG's, and further or alternatively, VW Australia's, failure to comply with its express warranty.

93. By reason of the matters pleaded in paragraphs 76, 77, and 90 to 92, VW AG, and further or alternatively VW Australia is liable under s 74G of the TPA to compensate the Applicants and Group Members for the loss or damage which they have suffered.

Failure to comply with express warranty: ACL

94. By reason of the matters pleaded in paragraph 78, there was a statutory guarantee imposed by s 59 of the ACL that VW AG would comply with any express warranty it gave or made in relation to the affected VW diesel vehicles.

95. By reason of placing compliance plates on the affected VW diesel vehicles, VW AG, and further or alternatively VW Australia gave or made an express warranty that the affected VW diesel vehicles complied with the applicable national standards.

VW FOIA, EPA 06/20/2017 2017-FFP_038646

96. By reason of the conduct pleaded in paragraph 40, VW AG, and further or alternatively VW Australia failed to comply with the express warranty it gave or made because the affected VW diesel vehicles failed to comply with ADR 79, which was a national standard for the purposes of the Motor Vehicle Standards Act.

97. For the purposes of s 271(1) of the ACL, the Applicants and Group Members are affected persons in relation to the affected VW diesel vehicles.

98. Accordingly, by reason of the failure to comply with the guarantee imposed by s 54 of the ACL, the Applicants and Group Members are entitled under s 271 of the ACL to recover damages from VW AG, and further or alternatively VW Australia.

PART H. FAILURE TO COMPLY WITH SAFETY STANDARDS

99. By reason of the matters pleaded in paragraph 47 and conduct pleaded in paragraph 40:

a. the affected VW diesel vehicles were consumer goods for which there was a safety standard in force, namely ADR 79, and which did not comply with the standard, for the purposes of s 106 of the ACL;

b. the affected VW diesel vehicles were consumer goods for which there was a prescribed consumer product safety standard in force, namely ADR 79, and which did not comply with the product safety standard, for the purposes of s 65C of the TPA;

c. VW AG supplied consumer goods in contravention of s 65C of the TPA and s 106(1) of the ACL;

d. VW AG manufactured, possessed and had control over consumer goods in contravention of s 106(3) of the ACL;

e. VW Australia supplied consumer goods in contravention of s 65C of the TPA and s 106(1)(3) of the ACL; and

f. VW Australia possessed and had control over consumer goods in contravention of s 106(3) of the ACL.

100. The Applicants and Group Members suffered loss or damage, as set out below at paragraphs 118 to 122, which loss or damage they would not have suffered had the

VW FOIA, EPA 06/20/2017 2017-FFP_038647

vehicles complied with ADR 79 and which was a result of a defect in the vehicles (being the presence of the defeat device).

PART I. TORT OF DECEIT

Deceit by VW Australia (including as agent of VW AG)

101. As pleaded in paragraph 51, VW Australia made the VW Compliance Representation (as defined in paragraph 50 above) to the Applicants and Group Members:

    a. knowing it to be untrue as pleaded in paragraphs 38 and 39;

    b. alternatively, recklessly indifferent to its truth;

    c. intending that the Applicants and Group Members would rely on it in deciding to acquire an affected VW diesel vehicle.

102. As pleaded in paragraph 52, the Applicants and Group Members did in fact rely on the VW Compliance Representation to acquire an interest in an affected VW diesel vehicle.

103. As pleaded in paragraphs 118 to 122, the Applicants and Group Members have suffered loss and damage by reason of their acquisition of an affected VW diesel vehicle, for which VW Australia is liable.

104. Further and alternatively, VW Australia is and was at all material times:

    a. VW AG's exclusive distributor in Australia, including of affected VW diesel vehicles; and

    b. VW AG's agent.

105. VW AG knew and intended that VW Australia would make the VW Compliance Representation in the course of VW Australia's importation and distribution of the affected VW diesel vehicles to persons acquiring such a vehicle.

106. VW AG thereby authorised VW Australia, and/or intended VW Australia to make the VW Compliance Representation to the Applicants and Group Members when VW AG:

    a. knew it was untrue as pleaded in paragraphs 38 to 39;

    b. intended that the Applicants and Group Members would rely on it in deciding to acquire an affected VW diesel vehicle.

VW FOIA, EPA 06/20/2017 2017-FFP_038648

107. As pleaded in paragraphs 118 to 122, the Applicants and Group Members have suffered loss and damage by reason of their acquisition of an affected VW diesel vehicle.

108. By reason of the matters pleaded in paragraphs 104 to 106, VW AG is liable for the Applicants' and Group Members' loss and damage arising from their reliance on the VW Compliance Representation made by VW Australia.

Deceit by VW AG

109. As pleaded in paragraphs 50, VW AG made the VW Compliance Representation to the Applicants and Group Members:

    a. knowing it to be untrue;

    b. intending that the Applicants and Group Members would rely on it in deciding to acquire an affected VW diesel vehicle.

110. As pleaded in paragraph 52, the Applicants and Group Members did in fact rely on the VW Compliance Representation to purchase or otherwise acquire an interest in an affected VW diesel vehicle.

111. As pleaded in paragraphs 118 to 122, the Applicants and Group Members have suffered loss and damage by reason of their acquisition of an affected VW diesel vehicle, for which VW AG is liable.

PART K. ACCESSORIAL LIABILITY

112. VW AG engaged in the following conduct:

    a. it manufactured affected VW diesel vehicles for sale in Australia, containing defeat devices, as pleaded in paragraph 35 above;

    b. further or alternatively VW AG sought and obtained approval to fix compliance plates to the affected VW diesel vehicles, as pleaded in paragraph 41 above; and/or

    c. further or alternatively VW AG fitted affected VW diesel vehicles with compliance plates.

113. Further, VW AG engaged in the conduct alleged in the previous paragraph with the knowledge that VW Australia would supply the affected VW diesel vehicles to VW

VW FOIA, EPA 06/20/2017 2017-FFP_038649

dealers and other retailers, who in turn would sell the affected VW diesel vehicles to Australian consumers.

114. By reason of the matters alleged in paragrap hs 111 and 112 above, VW AG was knowingly concerned in, or a party to, or aided, abetted, counselled or procured, the following contraventions:

    a. VW Australia's contravention of s 52 of the TPA and s 18 of the ACL, in relation to the VW Compliance Representation, as pleaded in paragraph 55 above;

    b. VW Australia's contravention of s 52 of the TPA and s 18 of the ACL, in relation the VW ADR 79 Compliance Representation, as pleaded in paragraph 59 above;

    c. VW Australia's contravention of s 52 of the TPA and s 18 o f the ACL, in relation to VW Australia's silence, as pleaded in paragraph 65 above;

    d. VW Australia's contraventions of s 53(a) and (c) of the TPA, and s 29(1)(b) and (g) of the ACL, in relation to the VW's false and misleading representation, as pleaded in paragraphs 68 and 69 above;

    e. VW Australia's contravention of s 51AB of the TPA and s 21 of the ACL, in relation to VW Australia's unconscionability, as pleaded in paragraph 75 above;

    f. VW Australia's contravention of s 65C of the TPA and s 106 of the ACL, as pleaded in paragraph 99 above.

115. VW Australia engaged in the following conduct:

    a. it s ought and obtained approval to fix compliance plates to the affected VW diesel vehicles;

    b. it fitted affected VW diesel vehicles with compliance plates.

    c. it supplied affected VW diesel vehicles to VW dealers and other retailers.

116. Further, VW Australia engaged in the conduct alleged in the previous paragraph with the knowledge that VW AG had installed defeat devices in the affected VW diesel vehicles.

117. By reason of the matter s alleged in paragraphs 114 and 115 above, VW Australia was knowingly concerned in, or a party to, or aided, abetted, counselled or procured, the following contraventions by VW AG:

VW FOIA, EPA 06/20/2017 2017-FFP_038650

a. VW AG's contravention of s 52 of the TPA and s 18 of the ACL, in relation to the VW Compliance Representation, as pleaded in paragraph 54 above;

b. VW AG's contravention of s 52 of the TPA and s 18 of the ACL, in relation the VW ADR 79 Compliance Representation, as pleaded in paragraph 59 above;

c. VW AG's contravention of s 52 of th e TPA and s 18 of the ACL, in relation to VW's silence, as pleaded in paragraph 62 above;

d. VW AG's contraventions of s 53(a) and (c) of the TPA, and s 29(1)(b) and (g) of the ACL, in relation to VW AG's false and misleading representation, as pleaded in paragraphs 66 and 67 above;

e. VW AG's contravention of s 51AB of the TPA and s 21 of the ACL, in relation to VW AG's unconscionability, as pleaded in paragraph 72 above;

f. VW AG's contravention of s 65C of the TPA and s 106 of the ACL, as pleaded in paragraph 99 above.

PART L. LOSS OR DAMAGE SUFFERED BY THE APPLICANT AND GROUP MEMBERS AND RELIEF SOUGHT

118. The Applicants and Group Members acquired an interest in an affected VW diesel vehicle that had no value at the time that the interest was acquired, as the ve hicle was not lawfully able to be registered in Australia or used on a public road in Australia.

119. By reason of the matters pleaded in the previous paragraph, each of the Applicants and Group Members have suffered loss and damage equivalent to the entire consideration given by them to acquire their interest in an affected VW diesel vehicle.

120. Further or in the alternative, the loss and damage suffered by each of the Applicants and Group Members is the difference between the consideration given by them to acquire their interest in an affected VW diesel vehicle and the true value of the vehicle at the time of acquiring the interest (including the true value if the defects in the vehicle had been known).

121. Further or in the alternative, the loss and damage suffere d by each of the Applicants and Group Members is the diminution in the value of their interest in the relevant affected VW diesel vehicle by virtue of the revelation that the affected VW diesel vehicles contain a defeat device.

VW FOIA, EPA 06/20/2017 2017-FFP_038651

Particulars

The loss and da mage includes the impact of the negative publicity flowing from:

(i) the revelation of the use of defeat devices; and/or

(ii) the necessary work required to rectify the vehicle to ensure the proper functioning of pollution control mechanisms,

on the second-hand value of the relevant vehicle.

122. Further or in the alternative, the loss and damage of the Applicants and each of the Group Members includes any expense or inconvenience suffered by them as a consequence of any recall of the relevant vehicle or any other steps to rectify any defects in the relevant vehicle.

123. The Applicants and Group Members have suffered the loss and damage pleaded in paragraphs 118 to 122 above by the conduct, or alternatively because of the conduct, of the Respondents pleaded in paragraphs 54, 55, 66, 68, 72 and 75 above.

124. Further or in the alternative, in the absence of th e conduct pleaded in paragraph 59 above, the Commonwealth would not have approved the affected VW diesel vehicles as compliant with ADR 79 and the vehicles would not have be en sold in Australia, and the Applicants and Group Members have thereby suffered the loss and damage pleaded in paragraphs 118 to 122 above by the conduct, or alternatively because of the conduct, of the Respondents pleaded in paragraphs 59, 67, 69, 72 and 75 above.

125. Further or in the alternative, by reason of the matters pleaded in paragraphs 61 and 64, the Applicants and Group Members have suffered the loss and damage pleaded in paragraphs 118 to 122 above by the conduct, or alternatively because of the c onduct, of the Respondents pleaded in paragraphs 62 and 65 above.

126. Further or in the alternative, the Applicants repeat paragraphs 81 to 83.

127. Further or in the alternative, the Applicants and Group Members have suffered the loss and damage pleaded in parag raphs 118 to 122 above which they are entitled to recover from the Respondents as pleaded in paragraphs 88 and 89 above.

128. Further or in the alternative, the Applicants repeat paragraphs 92 and 93.

VW FOIA, EPA 06/20/2017 2017-FFP_038652

129. Further or in the alternative, the Applicants and Group Members have suffered the loss and damage pleaded in paragraphs 118 to 122 above which they are entitled to recover from the Respondents as pleaded in paragraph 98 above.

130. Further or in the alternative, the Applicants and Group Members have suffered the loss and damage pleaded in paragraphs 118 to 122 above by the conduct, or alternatively because of the conduct, of the Respondents pleaded in paragraphs 99 and 100 above.

131. Further or in the alternative, the Applicants repeat paragraphs 103 and 111.

132. Further or in the alternative, by reason of the matters pleaded in paragraphs 123 to 125 and 130 above, the Applicants and Group Member have suffered the loss and damage pleaded in paragraphs 118 to 122 above by reason of the conduct of the Respondents pleaded in paragraphs 112 to 117 above.

133. By engaging in the conduct pleaded in paragraphs 101 to 111 above, VW AG and VW Australia showed a conscious and contumelious disregard for the rights of the Applicants and Group Members, which conduct is deserving of punishment by an award of exemplary damages.

134. The Applicants claim, in his/her own right and on behalf of the Group Members, the relief specified in the application, namely:

    a. an order pursuant to s 87 of the TPA and s 243 of the ACL requiring the respondents to refund money or property received as consideration for the acquisition of an interest in affected VW diesel vehicles;

    b. further or alternatively, damages;

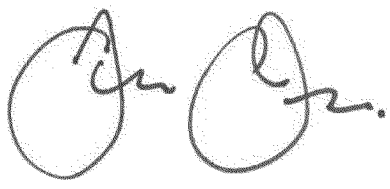
    c. further, exemplary damages;

VW FOIA, EPA 06/20/2017 2017-FFP_038653

d. costs; and

e. such other orders as the Court thinks fit.

Date: 19 November 2015



Jason Geisker

MAURICE BLACKBURN PTY LTD

Solicitor for the Applicants

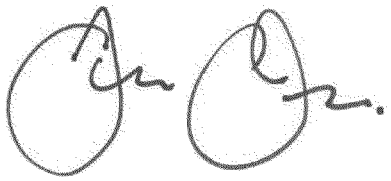
This pleading was prepared by Maurice Blackburn, Sandy Dawson and Declan Roche of counsel and settled by Cameron Moore SC.

VW FOIA, EPA 06/20/2017 2017-FFP_038654

Certificate of lawyer

I Jason Geisker certify to the Court that, in relation to the statement of claim filed on behalf of the Applicant, the factual and legal material available to me at present provides a proper basis for each allegation in the pleading.

Date: 19 November 2015



Jason Geisker

VW FOIA, EPA 06/20/2017 2017-FFP_038655

Schedule

No. of 2015

Federal Court of Australia
District Registry: NSW
Division: General

Applicants

Second Applicant: **Joanna Dalton**

Respondents

Second Respondent: **Volkswagen Group Australia Pty Ltd ACN 093 117 876**

Date: 19 November 2015

VW FOIA, EPA 06/20/2017 2017-FFP_038656

NOTICE OF FILING

This document was lodged electronically in the FEDERAL COURT OF AUSTRALIA (FCA) on 22/11/2015 9:56:12 PM AEDT and has been accepted for filing under the Court's Rules. Details of filing follow and important additional information about these are set out below.

Details of Filing

Document Lodged:	Statement of Claim - Form 17 - Rule 8.06(1)(a)
File Number:	NSD1472/2015
File Title:	Robyn Tanya Richardson v Audi AG & Anor
Registry:	NEW SOUTH WALES REGISTRY - FEDERAL COURT OF AUSTRALIA

Dated: 23/11/2015 2:33:07 PM AEDT

Registrar

Important Information

As required by the Court's Rules, this Notice has been inserted as the first page of the document which has been accepted for electronic filing. It is now taken to be part of that document for the purposes of the proceeding in the Court and contains important information for all parties to that proceeding. It must be included in the document served on each of those parties.

The date and time of lodgment also shown above are the date and time that the document was received by the Court. Under the Court's Rules the date of filing of the document is the day it was lodged (if that is a business day for the Registry which accepts it and the document was received by 4.30 pm local time at that Registry) or otherwise the next working day for that Registry.

Form 17
Rule 8.05(1)(a)

Statement of claim

No. of 20 15

Federal Court of Australia
District Registry: NSW
Division: General

Robyn Tanya Richardson
Applicant

Audi AG and others
Respondents

STATEMENT OF CLAIM

PART A. THE PARTIES

The proceeding

1. This Proceeding is commenced as a Representative Proceeding pursuant to Part IVA of the *Federal Court of Australia Act 1976* (Cth) by the Applicant, Robyn Richardson, on her own behalf and on behalf of the Group Members (as defined in paragraph 2 below).

The Applicant and other Group Members

2. The Applicant and the persons who she represents (**the Group Members**) are persons who:

   a. acquired prior to 1 8 September 2015 an interest in an affected Audi diesel vehicle (as defined in paragraph 38 below); and

   b. still had an interest in that vehicle as at 18 September 2015 ,

Filed on behalf of (name & role of party) The Applicant
Prepared by (name of person/lawyer) Jason Geisker
Law firm (if applicable) Maurice Blackburn Pty Ltd
Tel (02) 9261 1488 Fax (02) 9261 3318
Email jgeisker@mauriceblackburn.com.au
Address for service (include state and postcode) Level 32, 201 Elizabeth Street, Sydney NSW 2000

[Form approved 01/08/2011]

but not including:

c. the Respondents , or any wholly or partly owned subsidiary of any of the Respondents;

d. any Audi or Volkswagen authorised dealer; or

e. any Judge of the Federal Court of Australia

(**the Group**).

Particulars

(i) *Audi A3 Sportback, 1.6L TDI, Attraction 8p, MY13, 7SP Automatic;*

(ii) *In the case of the Group Members, p articulars of acquisition may be provided following the resolution of common questions.*

3. As at the date of the commencement of this proceeding there were seven or more Group Members.

The Respondents

4. The First Respondent, Audi AG (**Audi AG**), at all material times:

a. is and was a company incorporated pursuant to the laws of and registered in the Federal Republic of Germany and capable of being sued;

b. is and was a foreign corporation within the meaning of s 4 of the *Trade Practices Act 1974* (Cth) (**TPA**);

c. is and was a corporation within the meaning of s 4 of the *Competition and Consumer Act 2010* (Cth) (the **CCA**);

d. is and was a foreign corporation within the meaning of s 4 of the CCA;

e. is and was a corporation within the meaning of s 5 of the *Motor Vehicle Standards Act 1989* (Cth) (the **Motor Vehicle Standards Act**);

f. is and was the parent company of the Second Respondent;

g. manufactured the affected Audi diesel vehicles (as defined in paragraph 38), for the purpose of their supply to consumers in Australia;

VW FOIA, EPA 06/20/2017 2017-FFP_038659

h. is and was a "manufacturer" of the affected Audi diesel vehicles within the meaning of s 74A of the TPA and s 7 of the *Australian Consumer Law* (**ACL**) being Schedule 2 of the CCA;

i. supplied affected Audi diesel vehicles to Australia;

j. further or alternatively, distributed affected Audi diesel vehicles in Australia;

k. further or alternatively, advertised and promoted affected Audi diesel vehicles in Australia;

l. supplied new vehicles within the meaning of the Motor Vehicle Standards Act;

m. is and was subject to the TPA and the ACL because:

(i) Audi AG was carrying on a business in Australia;

(ii) further or alternatively, the conduct pleaded in paragraphs 4(i) to (k) occurred in Australia;

(iii) further or alternatively, by affixing compliance plates to the affected Audi diesel vehicles supplied in Australia, Audi AG made the Audi Compliance Representation (as pleaded in paragraph 55) in Australia; and

n. further, or alternatively, is and was in the business of marketing and distributing automotive products including the affected Audi diesel vehicles, internationally and in Australia, but did not have a place of business in Australia.

5. The Second Respondent, Audi Australia Pty Ltd ACN 077 092 776 (**Audi Australia**), at all material times:

a. is and was a company registered pursuant to the *Corporations Act 2001* (Cth) (**Corporations Act**) and capable of being sued;

b. is and was a trading corporation within the meaning of s 4 of the TPA;

c. is and was a corporation within the meaning of s 4 of the CCA;

d. is and was a corporation within the meaning of s 5 of the Motor Vehicle Standards Act;

VW FOIA, EPA 06/20/2017 2017-FFP_038660

e. is and was a "manufacturer" of the affected Audi diesel vehicles (as defined in paragraph 38), within the meaning of s 74A of the TPA and s 7 of the ACL being Schedule 2 of the CCA, on the basis that:

(i) Audi Australia held itself out to Australian consumers as the manufacturer of Audi diesel vehicles; and/or

(ii) Audi AG and, further or alternatively, the Third Respondent did not have a place of business in Australia and Audi Australia imported Audi diesel vehicles into Australia;

f. is and was a "supplier", within the meaning of s 4 of the TPA and ss 4 and 4C of the CCA and s 2 of the ACL, of the affected Audi diesel vehicles;

g. distributed affected Audi diesel vehicles in Australia;

h. further or alternatively, advertised and promoted affected Audi diesel vehicles in Australia;

i. imported and supplied new vehicles within the meaning of the Motor Vehicle Standards Act, including the affected Audi diesel vehicles;

j. is and was a wholly-owned subsidiary of Audi AG; and

k. is and was in the business of marketing, importing and distributing automotive products including the affected Audi diesel vehicles in Australia.

6. The Third Respondent, Volkswagen AG (**VW AG**), at all material times:

a. is and was a company incorporated pursuant to the laws of and registered in the Federal Republic of Germany and capable of being sued;

b. is and was a foreign corporation within the meaning of s 4 of the TPA;

c. is and was a corporation within the meaning of s 4 of the CCA;

d. is and was a foreign corporation within the meaning of s 4 of the CCA;

e. is and was a corporation within the meaning of s 5 of the Motor Vehicle Standards Act;

f. at all material times, owned approximately 99.55 percent of the share capital in Audi AG and was therefore the holding company of both Audi AG and Audi Australia;

g. manufactured certain components for inclusion in the affected Audi diesel vehicles (as defined in paragraph 3 8), for the purpose of their supply to consumers in Australia; and

7. The Respondents are, and were at all material times, related pa rties within the meaning of s 50 the Corporations Act.

PART B. COMPLIANCE REGIME FOR NEW CARS SOLD IN AUSTRALIA

Motor Vehicle Standards Act

8. At all material times, the Motor Vehicle Standards Act prohibited a person from supplying to the market a new vehic le that did not comply with national standards and prohibited a person from supplying to the market a vehicle that did not have fitted an identification plate of a type prescribed by the Motor Vehicle Standards Act , namely a plate certifying compliance with those national standards (**compliance plate**).

Particulars

(i) *Motor Vehicle Standards Act ss 10(1) and 14.*

9. At all material times, the Motor Vehicle Standards Act prohibited the importation of a new road vehicle that did not comply with national standards and prohibited the importation of a new road vehicle that did not have a compliance place fitted.

Particulars

(i) *Motor Vehicle Standards Act s 18.*

10. At all material times, the Motor Vehicle Standards Act:

a. required the importer of a road vehicle to do all things reasonable and necessary to ensure that when the vehicle was supplied to market it still complied with national standards and still had a compliance plate fitted;

b. prohibited the importer from modifying the vehicle in any way that made it not comply with national standards.

VW FOIA, EPA 06/20/2017 2017-FFP_038662

Particulars

(i) *Motor Vehicle Standards Act s 17.*

National Standards – Australian Design Rule 79

11. At all material times, Australian Design Rule 79 was a national standard for the purposes of the Motor Vehicle Standards Act (**Australian Design Rules** or **ADR**).

Particulars

(i) *The making of national standards is provided for in s 7 of the Motor Vehicle Standards Act which empowers the Minister to determine vehicle standards for road vehicles or vehicle components.*

(ii) *ADR 79/00 was originally determined in Road Vehicle (National Standards) Determination No 2 of 1999.*

(iii) *ADR 79/00 was remade in December 2005 as Vehicle Standard ADR 79/00 – Emission Control for Light Vehicles) 2005, to comply with the requirements of the Legislative Instruments Act 2003.*

(iv) *The applicable versions of ADR 79 were:*

1. *Vehicle Standard (ADR 79/01 – Emission Control for Light Vehicles) 2005;*

2. *Vehicle Standard (ADR 79/02 – Emission Control for Light Vehicles) 2005; and*

3. *Vehicle Standard (ADR 79/03 – Emission Control for Light Vehicles) 2011.*

12. At all material times, the Australian Design Rules were a mandatory safety standard for the purposes of s 65C of the TPA and 106 of the ACL.

Particulars

(i) *At relevant times during the currency of the TPA, pursuant to s 41 of the Motor Vehicle Standards Act, a national standard was taken to be a prescribed consumer product safety standard for the purposes of s 65C of the TPA;*

(ii) *Pursuant to s 41 of the Motor Vehicle Standards Act, a national standard is taken to be a safety standard for the purposes of s 106 of the ACL.*

13. At all material times, Australian Design Rule 79 was applicable to the affected Audi diesel vehicles, being M and N category vehicles with a gross vehicle mass less than or equal to 3.5 tonnes.

Particulars

(i) *Australian Design Rule 79/01, 79/02 and 79/03, reg 2.1.*

14. At all material times, ADR 79 applied to the affected Audi diesel vehicles as follows:

a. ADR 79/01: new model Audi diesel vehicles manufactured between 1 January 2006 and 30 June 2008 and all other Audi diesel vehicles manufactured between 1 January 2007 and 30 June 2010;

b. ADR 79/02: new model Audi diesel vehicles manufactured between 1 July 2008 and 31 October 2013 and all other Audi diesel vehicles manufactured between 1 July 2010 and 31 October 2016;

c. ADR 79/03: new model Audi diesel vehicles manufactured between 1 November 2013 and 31 October 2016.

Requirements of ADR 79

15. At all material times, the Australian Design Rules specified maximum permitted levels of exhaust emissions, including nitrogen oxides, depending on the gross vehicle mass of the vehicle.

Particulars

(i) *ADR 79/01, 79/02 and 79/03, Appendix A, rule 5.2.1.*

16. At all material times, pursuant to ADR 79, vehicle manufacturers or their authori sed representative were required to apply for Commonwealth approval with regard to exhaust emissions, crankcase emissions, evaporative emissions and durability of pollution control devices.

Particulars

VW FOIA, EPA 06/20/2017 2017-FFP_038664

(i) *ADR 79/01, 79/02 and 79/03, Appendix A, rule 3.1;*

(ii) *Approvals were obtained through the Road Vehicle Certification System administered by the Ve hicle Safety Standards Branch within the Commonwealth Department of Transport and Regional Services.*

17. From July 2008 onwards, vehicle manufacturers were required to submit a description of the provisions taken to prevent tampering with and modification of the emission control computer.

Particulars

(i) *ADR 79/02 and 79/03, Appendix A, rule 3.1*

18. At all material times, ADR 79 required that the components liable to affect the emission of pollutants be so designed, constructed and assembled as to enable the vehicle , in normal use, despite the vibration to which they may be subjected, to comply with the provisions of ADR 79.

Particulars

(i) *ADR 79/01, 79/02 and 79/03, Appendix A, rule 5.1.1.*

19. At all material times, ADR 79 prohibited the use of a defeat device in a new vehicle.

Particulars

(i) *ADR 79/01, 79/02 and 79/03, Appendix A, rule 5.1.2.1.*

Registration Requirements

20. At all material times, it was an offence under State and Territory laws for a person to use a motor vehicle on a road that did not comply with the applicabl e vehicle standards for the vehicle.

Particulars

(i) *Road Transport (Vehicle Registration) Regulation 2007 (NSW), Reg. 52(1);*

(ii) *Road Safety (Vehicles) Regulations 2009 (Vic), Reg 258(2) (formerly, Road Safety (Vehicles) Regulations 1999 (Vic), Reg 819(3);*

VW FOIA, EPA 06/20/2017 2017-FFP_038665

(iii) *Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 2010 (Qld), Reg. 5(1) (formerly Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 1999, Reg. 5(1));*

(iv) *Road Traffic Act 1961 (SA), s 116(1), 117(1) and 118(1);*

(v) *Road Traffic (Vehicles) Regulations 2014 (WA), Reg 232 (formerly, Road Traffic (Vehicle Standards) Regulations 2002, Reg. 8);*

(vi) *Road Transport (Vehicle Registration) Regulation 2000 (ACT), Reg 109(2);*

(vii) *Motor Vehicles (Standards) Regulations (NT), Reg 35;*

(viii) *Vehicles and Traffic (Vehicle Standards) Regulations 2014 (Tas), Reg 4(1)(a) (formerly, Vehicles and Traffic (Vehicle Standards) Regulation 2001 (Tas), Reg 4(1)(a).*

21. At all material times, ADR 79 applied to the design and construction of motor vehicles and accordingly was an applicable vehicle standard for the purposes of State and Territory laws.

Particulars

(i) *Road Transport (Vehicle Registration) Regulation 2007 (NSW), Schedule 2, clause 11 and 12;*

(ii) *Road Safety (Vehicles) Regulation 2009 (Vic), Schedule 2, clause 19 and 20 (formerly, Road Safety (Vehicles) Regulations 1999 (Vic), Schedule 8, clause 19 and 20);*

(iii) *Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 2010 (Qld), Schedule 1, clause 7 and 8 (formerly, Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 1999 (Qld), Schedule 1, clause 7 and 8);*

(iv) *Road Traffic (Light Vehicle Standards) Rules 2013 (SA), Reg 19 and 20 (formerly, Road Traffic (Light Vehicle Standards) Rules 1999 (SA), Reg. 19 and 20);*

(v) *Road Traffic (Vehicles) Regulations 2014 (WA), Reg 236 and 238 (formerly, Road Traffic (Vehicle Standards) Rules 2002 (WA) Rule 13 and 14, respectively);*

(vi) *Road Transport (Vehicle Registration) Regulation 2000 (ACT), Schedule 1, clause 1.15 and 1.16;*

(vii) *Motor Vehicles (Standards) Regulations - Australian Vehicle Standards Rule (1989) (NT), Reg 19 and 20;*

(viii) *Vehicles and Traffic (Vehicle Standards) Regulation* 2001 *(Tas), Reg 19 and 20.*

22. At all material times, it was an offence under State and Territory laws for a person to use an unregistered motor vehicle on a road.

Particulars

(i) *Road Transport Act 2013 (NSW), s 68(1) (formerly, Road Transport (Vehicle Registration) Act 1997, s 18;*

(ii) *Road Safety Act 1986 (Vic), s 7(1);*

(iii) *Transport Operations (Roa d Use Management —Vehicle Registration) Regulation 2010 (QLD), Reg. 11 (formerly Transport Operations (Road Use Management – Vehicle Registration) Regulation 1999 (Qld), Reg 13;*

(iv) *Motor Vehicles Act 1959 (SA), s. 9;*

(v) *Road Traffic (Vehicles) Act 2012 (WA), s. 4 (formerly, Road Traffic Act 1974 WA, s 15);*

(vi) *Road Transport (Vehicle Registration) Act 1999 (ACT), s. 18(1);*

(vii) *Traffic Act NT, s. 33(1);*

(viii) *Vehicle and Traffic Act 1999 (Tas), s. 127(1).*

23. At all material times, for a motor vehicle to be eligible for registratio n without conditions under State and Territory laws, it was required to comply with the applicable vehicle standards for the vehicle.

VW FOIA, EPA 06/20/2017 2017-FFP_038667

Particulars

(i) *Road Transport (Vehicle Registration) Regulation 2007 (NSW), Reg. 6(1);*

(ii) *Road Safety (Vehicles) Regulation 2 009 (Vic), Reg. 14(1) and 29(1) (formerly Road Safety (Vehicles) Regulations 1999 (Vic) Reg. 202(1) and 214(1), respectively);*

(iii) *Transport Operations (Road Use Management —Vehicle Registration) Regulation 2010 (QLD), Reg. 9 (formerly, Transport Operations (Ro ad Use Management —Vehicle Registration) Regulation 1999 (QLD), Reg. 8);*

(iv) *Motor Vehicles Act 1959 (SA), s 24(1);*

(v) *Road Traffic (Vehicles) Regulations 2014 (WA), Reg. 34 (formerly, Road Traffic (Licensing) Regulations 1975, Reg 9(2));*

(vi) *Road Transport (Vehicle Registration) Regulation 2000 (ACT), Reg. 26(1);*

(vii) *Motor Vehicles Act (NT), s. 8(a);*

(viii) *Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2010 (Tas), Reg. 52(1) (formerly, Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2000 (Tas), Reg. 45(1)).*

24. At all material times, an application for registration or renewal of registration could be refused under State and Territory laws if the vehicle did not comply with the applicable vehicle standards.

Particulars

(i) *Road Transport (Vehicle Registration) Regulation 2007 (NSW), Reg 6(1), 12(1) and 30(7);*

(ii) *Road Safety (Vehicles) Regulation 2009 (Vic), Reg 14(1), 29(1) and 69(4) (formerly Road Safety (Vehicles) Regulations 1999 (Vic) Reg 202, 214(1) and 227(7), respectively);*

(iii) *Transport Operations (Road Use Management —Vehicle Registration) Regulation 2010 (QLD), Reg. 17(1) and 43(11) (formerly, Transport Operations (Road Use Management —Vehicle Registration) Regulation 1999 (QLD), Reg. 14(1) and 37(11), respectively);*

(iv) *Motor Vehicles Act 1959 (SA), s 24(3);*

(v) *Road Traffic (Vehicles) Act 2012 (WA), s 5(3)(a)(i) (formerly, the Road Traffic Act 1974 (WA), s. 17(2));*

(vi) *Road Transport (Vehicle Registration) Regulation 2000 (ACT), Reg 26(1), 32(1)(a) and 68(9)(a);*

(vii) *Motor Vehicles Act (NT), s 8;*

(viii) *Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2010 (Tas), Reg 57(1) , 59(2) and 68(2) (formerly, Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2000 (Tas), Reg. 49(1) , 51(2)(a) and 60(2), respectively).*

25. At all material times, a motor vehicle's registration could be suspended or cancelled under State and Territory laws if the vehicle did not comply with the applicable vehicle standards.

Particulars

(i) *Road Transport (Vehicle Registration) Regulatio n 2007 (NSW), Reg 41(1);*

(ii) *Road Safety (Vehicles) Regulation 2009 (Vic), Reg. 114(b) , 115(1) and 117 (formerly Road Safety (Vehicles) Regulations 1999 (Vic) Reg. 245(1)(b) and 245(2), respectively);*

(iii) *Transport Operations (Road Use Management —Vehicle Registration) Regulation 2010 (QLD), Reg 58 (1) and (2) (formerly, Transport Operations (Road Use Management —Vehicle Registration) Regulation 1999 (QLD), Reg. 48(1) and (2));*

(iv) *Motor Vehicles Act 1959 (SA), s 55A(1);*

(v) *Road Traffic (Vehicles) Act 2012 (WA), s 9 (1) and (2) (formerly, the Road Traffic Act 1974 (WA), s. 23A);*

(vi) *Motor Vehicles Act (NT), s 102(2)(c);*

(vii) *Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2010 (Tas), Reg 52(1)(a) and 72(1)(b) (formerly, Vehicle and Traffic (Driver Licensin g and Vehicle Registration) Regulations 2000 (Tas), Reg. 45(1)(a) and 64(1)(b)).*

26. At all material times, a motor vehicle's registration could be refused or suspended or cancelled if, at the relevant time:

a. under NSW laws:

(i) the vehicle is not an eligible vehicle;

(ii) the relevant authority reasonably believes that information given in the application for registration is false or misleading;

(iii) a defect notice issued in relation to the vehicle ha s not been complied with and the date for compliance specified in the not ice has expired;

(iv) the relevant authority reasonably believes that the ownership, possession, control or description of the registrable vehicle (or of any part of the registrable vehicle) as recorded on the Register is uncertain;

(v) the registration has been issued erroneously;

b. under Victorian laws:

(i) the vehicle is not eligible for registration;

(ii) the relevant authority reasonably believes that information given in the application is false or misleading;

(iii) the relevant authority reasonably believes that the vehicle or part of the vehicle has, or may have, been illegally imported;

(iv) a vehicle defect notice relating to the vehicle has not been complied with and the date for compliance specified in the notice has expired;

(v) the relevant authority reasonably believes the ownership, possession, control or description of the vehicle as recorded on the register is uncertain;

(vi) the relevant authority reasonably believes the vehicle or part of the vehicle has, or may have, been illegally imported;

c. under Queensland laws:

(i) the relevant authority reasonably believes information given in the application is false or misleading;

(ii) the approval was issued because of a document or representation that is false or misleading or obtained or made in another improper way;

(iii) a defect notice issued in relation to the vehicle has not been complied with and the date for compliance specified in the notice had expired;

d. under South Australian laws:

(i) the relevant authority reasonably believes that information disclosed in the application for registration or any evidence provided by the applicant is or may be inaccurate, incomplete or misleading;

(ii) the relevant authority reasonably believes that information recorded in the register of motor vehicles in relation to the vehicle is or may be inaccurate, incomplete or misleading;

(iii) the vehicle was registered in error;

(iv) the vehicle has been suspended and the reason for suspension still exists following a period of notice;

e. under Australian Capital Territory laws:

(i) the vehicle is not an eligible vehicle;

(ii) the relevant authority believes on reasonable grounds that information given in, or in relation to, the application for registration is false, misleading or incomplete in a material particular;

(iii) a defect notice issued in relation to the vehicle has not been complied with and the date for compliance specified in the notice has expired;

(iv) the ownership, possession, control or description of the vehicle as recorded in the register is uncertain;

(v) the vehicle has been registered in error;

f. under Northern Territory laws:

(i) the registration of a motor vehicle has been obtained by fraud or deception;

(ii) the motor vehicle has been registered in error;

(iii) a defect notice issued in relation to the vehicle has not been complied with and the date for compliance or to show reasonable cause has expired;

g. under Tasmanian laws:

(i) the relevant authority reasonably believes that information given in or in relation to the application for registration is false or misleading;

(ii) the vehicle has been registered in error;

(iii) the vehicle is no longer eligible for registration;

(iv) the responsibility for the vehicle or the description of the vehicle as recorded in the register of motor vehicles and trailers is uncertain;

(v) a vehicle defect notice has been issued in respect of the vehicle, the time for compliance with the notice has passed, and the notice has not been complied with.

Particulars

(i) *Road Transport (Vehicle Registration) Regulation 2007 (NSW), reg 12(1) and 41(1);*

(ii) *Road Safety (Vehicles) Regulation 2009 (VIC), reg 29, 69(4), 114 and 117 (formerly, Road Safety (Vehicles) Re gulations 1999 (VIC) reg 214(2), 227(7), 245(1) and 245(2), respectively);*

(iii) *Transport Operations (Road Use Management) Act 1995 (QLD) s 18(1) and Transport Operations (Road Use Management —Vehicle Registration) Regulation 2010 (QLD), Reg. 17(1) and Schedule 7, clause 1 (formerly, Transport Operations (Road Use Management — Vehicle Registration) Regulation 1999 (QLD), reg 47);*

(iv) *Motor Vehicles Act 1959 (SA), s 24(3) and 55A(1);*

(v) *Road Transport (Vehicle Registration) Regulation 2000 (ACT), reg 32(1), 84(1);*

(vi) *Motor Vehicles Act (NT), s 102(2), 128A(14);*

(vii) *Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2010 (TAS), reg 57(2), 68(2) and 72(1) (formerly, Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2000 (TAS), reg 49(2) and 60(2), respectively).*

27. At all material times, State and Territory laws gave authorised officers and police officers the power to inspect a motor vehicle to determine if it complied with the applicable vehicle standards, and on discovering that it did not, the power to:

a. issue a warning or a defect notice;

b. impose conditions on the use of the vehicle; or

c. prohibit the use of the vehicle.

Particulars

(i) *Road Transport Act 2013 (NSW), s 76 (4) (formerly, Road Transport (Vehicle Registration) Act 1997 s 26 (2)) and the Road Transport (Vehicle Registration) Regulation 2007 (NSW), Reg 70;*

(ii) *Road Safety Act 1986 (VIC), s 13(2) and 14;*

(iii) *Transport Operations (Road User Management) Act 1995 (Qld) s 34(2), s 36(1) and Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 2010 (Qld), Reg 8 (formerly, Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 1999, Reg. 14);*

(iv) *Road Traffic Act 1961 (SA), s 40Q(2) and 145;*

(v) *Road Traffic (Administration) Act 2008 (WA), s 52(2) and Road Traffic (Vehicles) Act 2012 (WA), s 71(1) (formerly Road Traffic (Vehicle Standards) Regulations 2002, Reg 61 and 62(1));*

(vi) *Road Transport (Vehicle Registration) Act 1999 (ACT), s 25;*

(vii) *Motor Vehicles Act (NT), ss 128 and 128A;*

(viii) *Vehicles and Traffic Act 1999 (Tas), s 49(1)(f) and Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2010 (Tas), Reg. 85 (formerly, Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2000 (Tas), Reg. 68).*

PART C. DEFEAT DEVICES INSTALLED IN AUDI VEHICLES

28. During the period from approximately 2008 to 2015, certain Audi vehicles contained a form of software in the vehicle's management system designed to detect when the vehicle was undergoing an emissions test and activat e or maximise emissions control systems in the vehicle so as to reduce the output of nitrogen oxide in a way that did not occur, or did not occur to the same extent, in ordinary use of the vehicle or in ordinary driving conditions (**defeat device**).

Particulars of the number of affected vehicles

(i) *On about 28 September 2015, Audi AG announced that approximately 2.1 million vehicles were affected by the defeat device issue worldwide;*

(ii) *On about 7 October 2015, Audi Australia announced that 14,028 affected vehicles had been sold in Australia. On or about 9 October 2015, Audi Australia revised this figure upwards to 16,085 vehicles;*

(iii) *Further particulars of the exact number of Audi vehicles sold in Australia with the defeat device installed, and its operation, will be supplied in due course, including following discovery.*

29. Under ordinary driving conditions, the defeat device de -activated parts of the vehicle's emission control system, or reduced the effectiveness of the emission control system, with the result that the vehicle's performance was enhanced but the vehicle emitted higher levels of nitrogen oxide.

30. VW AG designed and developed the defeat device for installation and use in certain vehicles bearing a VW, Audi or Skoda badge, manufactured and sold, relevantly, by VW AG itself and/or its related entities, including Volkswagen Australia, Audi AG, Audi Australia and Skoda Auto a.s.

31. Prior to 3 September 2015, Audi AG had concealed from consumers and regulators that certain Audi diesel vehicles contained the defeat d evice, and the effect of that defeat device.

32. Audi AG's concealment of the installation of the defeat device was deliberate, or alternatively was recklessly indifferent to the true position.

33. Further or in the alternative, the defeat device in certain Audi diesel vehicles was contained in components supplied by VW AG, and:

a. prior to 3 September 2015, VW AG concealed from consumers and regulators that certain Audi diesel vehicles contained the defeat device and the effect of the defeat device; and

b. VW AG's concealment of the installation of the defeat device was deliberate.

VW FOIA, EPA 06/20/2017 2017-FFP_038675

34. A purpose and function of the defeat device was to convince regulators who tested the emission levels of Audi vehicles fitted with the defeat device , or alternatively relied on test data su bmitted to them as to those emission levels, that these vehicles had lower emissions of nitrogen oxide in ordinary use than was the case.

35. Further, a purpose and function of the defeat device was to convince relevant regulators who tested the emission leve ls of Audi vehicles fitted with the defeat device , or alternatively relied on test data submitted to them as to those emission levels, that those vehicles complied with relevant emission control restrictions for nitrogen oxide, when this was not the case.

Particulars

The relevant emission control restrictions include:

(i) *European emissions standards, Euro IV (commenced January 2005), Euro V (commenced September 2011) and Euro VI (commenced September 2014);*

(ii) *United States EPA emissions standards and Californi an LEV -II standards;*

(iii) *Australian standards ADR 79.*

36. The emission control systems that are activated or maximised by the defeat device , when the device detects an emission test , operate so as to reduce nitrogen oxide emissions, but , if activated or maximised in ordinary driving conditions would reduce nitrogen oxide emissions at the expense of vehicle performance, fuel economy.

37. A purpose and function of the defeat device was to persuade relevant regulators and consumers that Audi vehicles fitted with such a device had a combination of emissions control, performance and fuel economy that was in fact impossible for that vehicle to achieve in ordinary use or ordinary driving conditions.

PART D. AFFECTED AUDI DIESEL VEHICLES IN AUSTRALIA

38. At all material times, Audi AG manufactured for sale in Australia the following types of diesel vehicles which were fitted with a four cylinder "EA 189" 1.6L or 2.0L engine and which contained a defeat device (as defined in paragraph 28 above) (the **affected Audi diesel vehicles**):

VW FOIA, EPA 06/20/2017 2017-FFP_038676

a. A1;

b. A3;

c. A4;

d. A5;

e. A6;

f. Q3;

g. Q5;

h. TT.

Defeat device

39. At all material times, Audi AG was aware that, or alternatively was recklessly indifferent as to whether, the affected Audi diesel vehicles had a defeat device.

40. At all material times, Audi AG was aware that the purpose and function of a defeat device was as pleaded in paragraphs 34 to 37 above.

41. Further or alternatively, VW AG was aware that the affected Audi diesel vehicles had a defeat device.

42. Further or alternatively, VW AG was aware that the purpose and function of a defeat device was as pleaded in paragraphs 34 to 37 above.

43. At all material times, Audi Australia was aware that, or alternatively was recklessly indifferent as to whether, the affected Audi diesel vehicles, or alternatively some of the affected Audi diesel vehicles, had a defeat device.

44. At all material times, Audi Australia was aware that the purpose and function of a defeat device was as pleaded in paragraphs 34 to 37 above.

45. By reason of the matters pleaded in paragraphs 28 and 37, the affected Audi diesel vehicles failed to comply with the requirements of ADR 79 in the following respects:

    a. under ordinary driving conditions, the affected Audi diesel vehicles emitted levels of nitrogen oxide that exceeded the emission limits in ADR 79;

    b. the components of the EA 189 engine liable to affect the emission of pollutants, and therefore the EA 189 engine itself, were not designed, constructed and

VW FOIA, EPA 06/20/2017 2017-FFP_038677

assembled as to enable the vehicle, in normal use, to comply with the provisions of ADR 79;

c. the defeat device was a defeat device within the meaning of ADR 79, the installation of which was in contravention of ADR 79.

Particulars

(i) *In or about May 2014, independent researchers at the Centre for Alternative Fuels, Engines and Emissions at West Virginia University (WVU) conducted an emissions study on vehicles including a Volkswagen 2012 Jetta and a 2013 Passat with an EA 189 engine. The study was commissioned by the International Council for Clean Transportation. The emissions testing of the two Volkswagen vehicles revealed nitrogen oxide emissions of between 0.344 and 1.505 g/km, depending on drive conditions, which exceed the maximum levels permitted under ADR 79;*

(ii) *On or about 3 September 2015, VW AG admitted that four cylinder diesel vehicles from model years 2009 to 2015 contained the defeat device;*

(iii) *The affected Audi vehicles contained and used the EA 189 engine;*

(iv) *The website for Audi.com.au contains the following information in the section: Diesel Emissions Activity:*

"As you may be aware, there have been press reports about the emissions of certain Audi diesel models.

Our company deeply regrets this fact and wants to ensure that our owners are well-informed about our action plan and next steps regarding this topic."

...

"Q: How many cars are affected in Australia?

A: Audi Australia Pty Ltd can confirm that 16,085 Audi vehicles fitted with an EA189 engine are affected in Australia. All vehicles will be recalled and rectified as part of this campaign."

(v) *The website for Audi.com contai ns the following information in the section: Current Information for Customers – FAQ:*

"Q: What are the effects of this situation?

A: Neither the operation nor the safety of the vehicle is impaired. Software was used which optimises NOx emissions on the test bed."

(vi) *A product safety recall on the Australian Competition and Consumer Commission website contains the following information under the heading 'Audi Australia P/L—Audi A1, A3, A4, A5, A5 Cabriolet, A6, Q3, Q5 and TT - Diesel Exhaust Gas PRA number: 2015/14956 published on 14 October 2015:*

*"**What are the defects?***

The emissions levels may not meet the regulatory requirements when the affected vehicle is driven under normal conditions.

What are the hazards?

The vehicle may not comply with emissions standards when driven under normal conditions."

(vii) *Further particulars may be provided following discovery.*

Compliance plates fixed to affected Audi diesel vehicles

46. Notwithstanding the matters pleaded in paragraphs 28 to 45, in purported compliance with Australia n Design Rule 79, Audi AG, and further or alternatively Audi Australia , sought and obtained approval from the Commonwealth to fix compliance plates to affected Audi diesel vehicles.

47. Audi AG, and further or alternatively Audi Australia, in seeking approval from the Commonwealth to fix compliance plates to affected Audi diesel vehicles, did not disclose:

a. that the affected Audi diesel vehicles were fitted with defeat devices , contrary to ADR 79;

b. that the affected Audi diesel vehicles did not comply with ADR 79 as pleaded in paragraph 45 above.

VW FOIA, EPA 06/20/2017 2017-FFP_038679

48. Having obtained approval from the Commonwealth to do so, Audi AG, and further or alternatively, Audi Australia, fitted the affected Audi diesel vehicles with compliance plates prior to their supply, distribution or sale.

Affected Audi Diesel Vehicles Failed to Comply with Registration Requirements

49. By failing to comply with ADR 79, the affected Audi diesel vehicles failed to comply (and continue to fail to comply) with the requirements for registration under the relevant State and Territory regulations.

50. By reason of the matters pleaded in the previous paragraph, the affected Audi diesel vehicles were not and are not lawfully able to be registered in Australia, or driven on public roads in Australia, at any time.

PART E. MISLEADING OR DECEPTIVE CONDUCT

51. The conduct of Audi AG, Audi Australia and VW AG as pleaded in this Statement of Claim was conduct in trade and commerce.

52. At all material times, affected Audi diesel vehicles were:

    a. "goods" within the meaning of s 4 of the TPA and s 2 of the ACL, in that they were vehicles;

    b. "goods" within the meaning of s 74A(2)(a) of the TPA, in that they were goods of a kind ordinarily acquired for personal, domestic or household use;

    c. "consumer goods" within the meaning of s 2 of the ACL, in that they were goods that were intended to be used, and were of a kind likely to be used, for personal, domestic or household use or consumption.

53. At all material times, the Applicant and Group Members acquired the affected Audi diesel vehicles as consumers, within the meaning of s 4B of the TPA in that:

    a. the amount paid to acquire the affected Audi diesel vehicles did not exceed $40,000; or

    b. the affected Audi diesel vehicles were of a kind ordinarily acquired for personal, domestic or household use; or

    c. the affected Audi diesel vehicles were acquired for use principally in the transport of goods on public roads.

VW FOIA, EPA 06/20/2017 2017-FFP_038680

54. At all material times, the Applicant and Group Members acquired the affected Audi diesel vehicles as consumers, within the meaning of s 3 of the ACL, in that:

    a. the amount paid to acquire the affected Audi diesel vehicles did not exceed $40,000; or

    b. the affected Audi diesel vehicles were of a kind ordinarily acquired for personal, domestic or household use; or

    c. the affec ted Audi diesel vehicles were acquired for use principally in the transport of goods on public roads.

Audi Compliance Representation by Audi AG/Audi Australia

55. By the conduct pleaded in paragraphs 4(g), (i) to (k) above, Audi AG manufactured, supplied and o therwise dealt with the affected Audi diesel vehicles as vehicles that were for use as road vehicles in Australia, and further or alternatively affixed a compliance plate certifying compliance with Australian vehicle standards, and thereby made a representation to all persons acquiring or dealing with the affected Audi diesel vehicles that the affected Audi diesel vehicles complied with the applicable legal requirements for road vehicles in Australia (**the Audi Compliance Representation**).

56. Further, or alternatively, by the conduct pleaded in paragraphs 5(g) and (h) above, Audi Australia distributed, promoted and otherwise dealt with the affected Audi diesel vehicles as vehicles that were for use as road vehicles in Australia, and that had affixed a compliance plate certifying compliance with Australian vehicle standards, and thereby made the Audi Compliance Representation.

57. The Applicant and Group Members purchased or otherwise acquired interests in the affected Audi diesel vehicles because of the Audi Compliance Representation.

58. By reason of the matters pleaded above in paragraph 45, the Audi Compliance Representation was false or misleading.

59. By reason of the conduct pleaded in paragraphs 55 and 58, Audi AG engaged in conduct in trade or commerce that was mis leading or deceptive, or alternatively was likely to mislead or deceive, in contravention of s 52 of the TPA and s 18 of the ACL.

VW FOIA, EPA 06/20/2017 2017-FFP_038681

60. By reason of the conduct pleaded in paragraphs 56 and 58, Audi Australia engaged in conduct in trade or commerce that was misleading or deceptive, or alternatively was likely to mislead or deceive, in contravention of s 52 of the TPA and s 18 of the ACL.

Audi ADR Compliance Representation by Audi AG/Audi Australia

61. By reason of the matters pleaded in paragraph 46 above, Audi AG, and further or alternatively Audi Australia, represented to the Commonwealth that the affected VW diesel vehicles were compliant with ADR 79 (**the Audi ADR 79 Compliance Representation**).

Particulars

(i) *The representation was made with respect of each model of affected Audi diesel vehicles;*

(ii) *The representation was contained in each application for these models submitted pursuant to rule 3.1 of ADR 79;*

(iii) *Further particulars may be provided following discovery and subpoenas in the proceedings, including production of the relevant applications.*

62. The Commonwealth relied upon the Audi ADR 79 Compliance Representation in:

a. granting approval to each model of affected Audi diesel vehicles in accordance with rule 4 of ADR 79; and

b. granting approval for Audi AG, or further and alternatively, Audi Australia, to fit a compliance plate to each model of affected VW diesel vehicles.

63. By reason of the matters pleaded in paragraph 45 above, the Audi ADR 79 Compliance Representation was false and misleading, in that the affected VW diesel vehicles were not compliant with ADR 79.

64. By reason of the conduct pleaded in paragraphs 61 and 63, Audi AG, and further and alternatively Audi Australia, engaged in conduct in trade or commerce that was misleading or deceptive, or alternatively was likely to mislead or deceive, in contravention of s 52 of the TPA and s 18 of the ACL.

VW FOIA, EPA 06/20/2017 2017-FFP_038682

Misleading or deceptive silence by AudiAG/ Audi Australia

65. Further or in the alternative, by manufacturing the affected Audi diesel vehicles for supply to and sale in Australia, and applying for and obtaining approval to affix compliance plates to those vehicles as pleaded in paragraph 46, Audi AG created a reasonable expectation:

    a. on the part of the Commonwealth; and

    b. on the part of persons acquiring an interest in an affected Audi diesel vehicle,

    that the affected Audi diesel vehicles complied with the applicable legal requirements for road vehicles in Australia.

66. Given that reasonable expectation on the part of the Commonwealth and the persons referred to in the previous paragraph, Audi AG's failure to disclose that the affected Audi diesel vehicles had been fitted with a defeat device, was misleading or deceptive conduct or conduct that was likely to mislead or deceive in that:

    a. if the Commonwealth had been aware that the affected Audi diesel vehicles contained the defeat device, then the Commonwealth would not have approved the affected Audi diesel vehicles as complying with ADR 79 and the vehicles would not have been sold in Australia; and

    b. if consumers had been aware that the affected Audi diesel vehicles contained the defeat device, then consumers would not have acquired an interest in an affected Audi diesel vehicle.

67. By reason of the conduct pleaded in paragraphs 65 and 66, Audi AG engaged in conduct in trade or commerce that was misleading or deceptive, or alternatively was likely to mislead or deceive, in contravention of s 52 of the TPA and s 18 of the ACL.

68. Further or in the alternative, by distributing the affected Audi diesel vehicles in Australia, and applying for and obtaining Commonwealth approval to affix compliance plates to those vehicles, Audi Australia created a reasonable expectation:

    a. on the part of the Commonwealth; and

    b. on the part of persons acquiring an interest in an affected VW diesel vehicle,

VW FOIA, EPA 06/20/2017 2017-FFP_038683

that the affected Audi diesel vehicles complied with the applicable legal requirements for road vehicles in Australia.

69. Given that reasonable expectation on the part of the Commonwealth and the persons referred to in the previous paragraph, Audi Australia's fai lure to disclose that the affected Audi diesel vehicles had been fitted with a defeat device, was misleading or deceptive conduct or conduct that was likely to mislead or deceive in that:

    a. if the Commonwealth had been aware that the affected Audi diesel veh icles contained the defeat device, then the Commonwealth would not have approved the affected Audi diesel vehicles as complying with ADR 79 and the vehicles would not have been sold in Australia; and

    b. if consumers had been aware that the affected Audi diesel vehicles contained the defeat device, then consumers would not have acquired an interest in an affected Audi diesel vehicle.

70. By reason of the conduct pleaded in paragraphs 68 and 69, Audi Australia engaged in conduct in trade or commerce that was misleading or deceptive, or alternatively was likely to mislead or deceive, in contravention of s 52 of the TPA and s 18 of the ACL.

False and misleading representation

71. Further or in the alternative, by r eason of the conduct pleaded in paragraph 55, Audi AG made a false or misleading representation in trade or commerce in connection with the promotion of the supply of motor vehicles, that the affected Audi diesel vehicles:

    a. were of a particular standard and quality, in that Audi AG falsely represented that the affected Audi diesel vehicles were compliant with applicable legal requirements for road vehicles in Australia, when that was not the case , in contravention of s 53(a) of the TPA and s 29(1)(b) of the ACL;

    b. had certain performance characteristics, uses or benefits, in that Audi AG falsely represented that the affected Audi diesel vehicles were able to be registered and used on public roads in Austra lia, when that was not the case, in contravention of s 53(c) of the TPA and s 29(1)(g) of the ACL.

72. Further or in the alternative, by reason of t he conduct pleaded in paragraph 61, Audi AG made a false or misleading representation in trade or commerce in connection with the promotion of the supply of motor vehicles, that the affected Audi diesel vehicles:

VW FOIA, EPA 06/20/2017 2017-FFP_038684

a. were of a particular standard or quality, in contravention of s 53(a) of the TPA and s 29(1)(b) of the ACL; and

b. had particular performance characteristics and benefits, contravention of s 53(c) of the TPA and s 29(1)(g) of the ACL,

in that Audi AG falsely represented that the affected Audi diesel vehicles produced emissions at a level below the limits specified by ADR 79, and that the vehicles' emissions technology would preserve emissions at that level in ordinary driving conditions, when that was not the case.

73. Further or in the alternative, by reason of the conduct pleaded in paragraph 56, Audi Australia made a false or misleading representation in trade or commerce in connection with the promotion of the supply of motor vehicles, that the affected Audi diesel vehicles:

a. were of a particular standard and quality, in that Audi Australia falsely represented that the affected Audi diesel vehicles were compliant with applicable legal requirements for road vehicles in Australia, when that was not the case, in contravention of s 53(a) of the TPA and s 29(1)(b) of the ACL;

b. had certain performance characteristics, uses or benefits, in that Audi Australia falsely represented that the affected Audi diesel vehicles were able to be registered and used on public roads in Australia, when that was not the case, in contravention of s 53(c) of the TPA and s 29(1)(g) of the ACL.

74. Further or in the alternative, by reason of the conduct pleaded in paragraph 61, Audi Australia made a false or misleading representation in trade or commerce in connection with the promotion of the supply of motor vehicles, that the affected Audi diesel vehicles:

a. were of a particular standard or quality, in contravention of s 53(a) of the TPA and s 29(1)(b) of the ACL; and

b. had particular performance characteristics and benefits, contravention of s 53(c) of the TPA and s 29(1)(g) of the ACL,

in that Audi Australia falsely represented that the affected Audi diesel vehicles produced emissions at a level below the limits specified by ADR 79, and that the

VW FOIA, EPA 06/20/2017 2017-FFP_038685

vehicles' emissions technology would preserve emissions at that level in ordinary driving conditions, when that was not the case.

PART F. UNCONSCIONABLE CONDUCT

75. The Applicant repeats paragraphs 28 to 38, 41 to 42 and 45 to 50.

76. The conduct by Audi AG referred to in the previous paragraph occurred in circumstances where:

a. Audi AG concealed from regulators and from consumers that affected Audi diesel vehicles, had a defeat device;

b. that concealment was deliberate;

c. the purpose and function of the defeat device was as pleaded in paragraphs 34 to 37;

d. that purpose and function was achieved in the case of the Commonwealth, because the Commonwealth accepted at face value the results of emissions tests conducted by Audi AG, or an authorised representative of Audi AG, unaware that the affected Audi diesel vehicles had a defeat device and that the results provided to the Commonwealth would be unable to be replic ated in ordinary driving conditions;

e. Audi AG thereby cheated on emissions tests in the process of obtaining regulatory approval to sell the affected Audi diesel vehicles in Australia , and thereby obtained approval to sell the affected Audi diesel vehicles in Australia as a result of that cheating;

f. the Commonwealth, and thereby consumers, were primarily reliant upon Audi AG to conduct any testing with integrity and without devices designed to subvert the testing;

g. Audi AG also cheated on European emissions tests, in circumstances where affected Audi diesel vehicles were advertised in Australia as complying with European emission standards and such compliance was a very relevant matter for consumers in Australia in considering whether to purchase an affected Audi diesel vehicle;

VW FOIA, EPA 06/20/2017 2017-FFP_038686

h. consumers in Australia were in a considerably weaker position than Audi AG, and had no means of knowing about the existence of the defeat device or that Audi AG was engaged in cheating on emissions tests;

i. the presence of the defeat d evice allowed Audi AG to engage in an unfair comparison with other brands of vehicles in favour of Audi AG, in that the performance and fuel economy figures that Audi AG was able to promote for the affected Audi diesel vehicles , and further and alternative ly the cost of components for the vehicles and thus the final price of the vehicles, were better than they would be if the vehicles did not have the defeat device and were complying at all times with emissions requirements. Audi AG therefore engaged in unfair competition in order to garner additional sales and profits;

j. as a consequence of the conduct of Audi AG, Australian consumers have purchased large numbers of affected Audi diesel vehicles that:

(i) have higher pollution outputs than consumers would have anticipated;

(ii) alternatively, have lower performance and/or fuel economy than consumers were told when purchasing their vehicles, if the vehicle is modified so as to reduce excessive pollution;

Particulars

(i) *On 8 October 2015, the Chief Executive Officer of Vo lkswagen US said in testimony before the US congress that there may be a performance reduction resulting from the modification to fix the problem of excessive emissions;*

(ii) *Further particulars may be provided following discovery.*

k. in normal operation of the affected Audi diesel vehi cles, the defeat device operates so as to permit the release significant and unnecessary quantities of pollutants into the atmosphere, thus contributing to poor air quality in Australia and unnecessarily exposing Australians to he alth risks and health effects, all so that Audi AG could make additional sales and profits . Audi AG thus deliberately compromised the health and safety of Australians and the quality of the Australian environment for profit.

VW FOIA, EPA 06/20/2017 2017-FFP_038687

77. By reason of the matters referred to in the previous paragraph, Audi AG, in trade or commerce, engaged in conduct in connection with the supply of goods that was, in all the circumstances, unconscionable, in contravention of s 51AB of the TPA, and s 21 of the ACL.

78. Further or in the alternative, the Applicant repeats paragraphs 28 to 38, 43 to 50.

79. The conduct by Audi Australia referred to in the previous paragraph occurred in circumstances where:

a. Audi Australia concealed from the Commonwealth and from consumers that various Audi vehicles, including the affected Audi diesel vehicles, had a defeat device;

b. that concealment was deliberate;

c. the purpose and function of the defeat device was as pleaded in paragraphs 34 to 37 above;

d. Audi Australia obtained for itself a benefit flowing from the matters pleaded in paragraph 76 above, including because Audi Australia has promoted the affected Audi diesel vehicles as compliant with European emissions requirements;

e. consumers in Australia were in a considerably weaker position than Audi Australia, and had no means of knowing about the existence of the defeat device;

f. the presence of the defeat device allowed Audi Australia to engage in an unfair comparison with other brands of vehicles in favour of Audi Australia, in that the performance and fuel economy figures that Audi Australia was able to promote for the affected Audi diesel vehicles, and further and alternatively the cost of components for the vehicles and thus the final price of the vehicles, were better than they would be if the vehicles did not have the defeat device and were complying at all times with emissions requirements. Audi Australia therefore engaged in unfair competition in order to garner additional sales and profits;

g. as a consequence of the conduct of Audi Australia, Australian consumers have purchased large numbers of affected Audi diesel vehicles that:

VW FOIA, EPA 06/20/2017 2017-FFP_038688

(i) have higher pollution outputs than consumers would have anticipated;

(ii) alternatively, have lower performance and/or fuel economy than consumers were told when purchasing their vehicles, if the vehicle is modified so as to reduce excessive pollution;

Particulars

(i) *On 8 October 2015, the Chief Executive Officer of Volkswagen US said in testimony before the US congress that there may be a performance reduction resulting from the modification to fix the problem of excessive emissions;*

(ii) *Further particulars may be provided following discovery.*

h. in normal operation of the affected Audi diesel vehicles, the defeat device operates so as to permit the release of significant and unnecessary quantities of pollutants into the atmosphere, thus contributing to poor air quality in Australia and unnecessarily exposing Australians to health risks and health effects, all so that Audi Australia could make additional sales and profits. By selling affected Audi diesel vehicles with the defeat device, Audi Australia has thus compromised, or alternatively deliberately compromised, the health and safety of Australians and the quality of the Australian environment for profit.

80. By reason of the matters referred to in the previous paragraph, Audi Australia, in trade or commerce, engaged in conduct in connection with the supply of goods that was, in all the circumstances, unconscionable, in contravention of s 51AB of the TPA, and s 21 of the ACL.

81. Further or in the alternative, the Applicant repeats paragraphs 28 to 40, 45 to 50.

82. The conduct by VW AG referred to in the previous paragraph occurred in circumstances where:

a. VW AG designed and developed the defeat device for installation and use in vehicles including VW, Audi and Skoda vehicles;

b. VW AG concealed from regulators and from consumers that various Audi vehicles, including the affected Audi diesel vehicles, had a defeat device;

c. that concealment was deliberate;

VW FOIA, EPA 06/20/2017 2017-FFP_038689

d. the purpose and function of the defeat device was as pleaded in paragraphs 34 to 37 above;

e. VW AG, as the ultimate owner of Audi AG and Audi Australia, obtained for itself a benefit flowing from the matters pleaded in paragraph 76 above, including because Audi AG and/or Audi Australia promoted the affected Audi diesel vehicles as compliant with European emissions requirements;

f. consumers in Australia were in a considerably weaker position than VW AG, and had no means of knowing about the existence of the defeat device;

g. the presence of the defeat device allowed , and was intended by VW AG to allow, Audi AG and/or Audi Australia to engage in an unfair comparison with other brands of vehicles in favour of Audi AG and/or Audi Australia, in that the performance and fuel economy figures that Audi AG and/or Audi Australia was able to promote for the affected Audi diesel vehicles, and further and alternatively the cost of components for the vehicles and thus the final price of the vehi cles, were better than they would be if the vehicles did not have the defeat device and were complying at all times with emissions requirements. Audi AG and/or Audi Australia therefore engaged in unfair competition in order to garner additional sales and profits;

h. as a consequence of the conduct of VW AG, Australian consumers have purchased large numbers of affected Audi diesel vehicles that:

(i) have higher pollution outputs than consumers would have anticipated;

(ii) alternatively, have lower performance and/or fuel economy than consumers were told when purchasing their vehicles, if the vehicle is modified so as to reduce excessive pollution;

Particulars

(i) *On 8 October 2015, the Chief Executive Officer of Volkswagen US said in testimony before the US congress that th ere may be a performance reduction resulting from the modification to fix the problem of excessive emissions;*

(ii) *Further particulars may be provided following discovery.*

VW FOIA, EPA 06/20/2017 2017-FFP_038690

i. in normal operation of the affected Audi diesel vehicles, the defeat device operates so as to permit the release of significant and unnecessary quantities of pollutants into the atmosphere, thus contributing to poor air quality in Australia and unnecessarily exposing Australians to health risks and health effects, all so that Audi Australia could make additional sales and profits. By its conduct VW AG has thus compromised, or alternatively deliberately compromised, the health and safety of Australians and the quality of the Australian environment for profit.

83. By reason of the matters referred to in the previous paragraph, VW AG, in trade or commerce, engaged in conduct in connection with the supply of goods that was, in all the circumstances, unconscionable, in contravention of s 51AB of the TPA, and s 21 of the ACL.

PART G. FAILURE TO COMPLY WITH STATUTORY WARRANTIES AND GUARANTEES

84. At all material times until 1 January 2011:

a. Audi AG, in trade and commerce, manufactured and supplied the affected Audi diesel vehicles to Audi Australia, or alternatively, Audi dealers and other retailers selling Audi vehicles; and

b. Audi dealers and other retailers selling Audi vehicles supplied the affected Audi diesel vehicles to consumers.

85. Further, or alternatively, at all material times until 1 January 2011:

a. Audi Australia, in trade and commerce, manufactured and supplied the affected Audi diesel vehicles to Audi dealers and other retailers selling Audi vehicles; and

b. Audi dealers and other retailers selling Audi vehicles supplied the affected Audi diesel vehicles to consumers.

86. At material times from 1 January 2011, affected Audi diesel vehicles of which VW AG and/or Audi AG and/or Audi Australia were the manufacturer, were supplied to consumers, in trade and commerce, by Audi dealers and by other retailers selling Audi vehicles, including second hand dealers.

VW FOIA, EPA 06/20/2017 2017-FFP_038691

Action in respect of goods of unmerchantable quality: TPA

87. The affected Audi diesel vehicles were not of merchantable quality because they:

    a. were unable lawfully to be registered or used on public roads in Australia; and

    b. further or alternatively, possess ed a defeat device which prevented the goods from complying with the Australian emissions requirements contained in ADR 79, as pleaded above in paragraph 45.

88. Further, the affected Audi diesel vehicles were not of merchantable quality because they were not as fit for the purpose of being registered or driven on public roads in Australia, being a purpose for which motor vehicles are commonly bought, as it was reasonable to expect.

89. As pleaded in paragraphs 133 to 137, the Applicant and Group Members suffered loss or damage by reason of the fact that the affected Audi diesel vehicles were not of merchantable quality.

90. Accordingly, by reason of the matters pleaded above in paragraphs 84, and 87 to 89, Audi AG is liable to compensate the Applicant and class members for the loss or damage, in accordance with s 74D of the TPA.

91. Further or alternatively, by reason of the matters pleaded above in paragraphs 85, and 87 to 89, Audi Australia is liable to compensate consumers for the loss or damage, in accordance with s 74D of the TPA.

Guarantee as to acceptable quality: ACL

92. By reason of the matters pleaded in the paragraph 86, there was a statutory guarantee that the Audi diesel vehicles were of acceptable quality, as specified by s 54 of the ACL.

93. By reason of the matters pleaded in paragraph 45, the affected Audi diesel vehicles failed to comply with the guarantee as to acceptable quality imposed by s 54 of the ACL, in that the vehicles were not of acceptable quality because they:

    a. were unable lawfully to be registered or used on public roads in Australia; and

VW FOIA, EPA 06/20/2017 2017-FFP_038692

b. further or alternatively, possessed a defeat device which prevented the goods from complying with the Australian emissions requirements contained in ADR 79.

94. Further, by reason of the matters pleaded in paragraph 45, the affected Audi diesel vehicles failed to comply with the guarantee as to acceptable quality imposed by s 54 of the ACL, in that the vehicles were not fit for the purposes for which goods of that type are commonly supplied or free from defects, because they:

a. were unable lawfully to be registered or used on public roads in Australia; and

b. further or alternatively, possessed a defeat device which prevented the goods from complying with the Australian emissions requirements contained in ADR 79, as pleaded above in paragraph 45.

95. For the purposes of s 271(1) of the ACL, the Applicant and Group Members are affected persons in relation to the affected Audi diesel vehicles.

96. Accordingly, by reason of the failure to comply with the guarantee imposed by s 54 of the ACL, the Applicant and Group Members are entitled under s 271 of the ACL to recover damages from Audi AG.

97. Further, or alternatively, by reason of the failure to comply with the guarantee imposed by s 54 of the ACL, the Applicant and Group Members are entitled under s 271 of the ACL to recover damages from Audi Australia.

Action in respect of non-compliance with express warranty: TPA

98. By reason of placing compliance plates on the affected Audi diesel vehicles, Audi AG, and further or alternatively Audi Australia, in trade and commerce, gave an express warranty, within the meaning of s 74G of the TPA, that the affected Audi diesel vehicles complied with the applicable national standards.

99. By reason of the conduct pleaded in paragraph 45, Audi AG, and further or alternatively Audi Australia, failed to comply with the express warranty it gave or made because the affected Audi diesel vehicles failed to comply with ADR 79, which was a national standard for the purposes of the Motor Vehicle Standards Act.

VW FOIA, EPA 06/20/2017 2017-FFP_038693

100. As pleaded below in paragraph s 133 to 149 below, the Applicant and Group Members suffered loss or damage by reason of Audi AG's, and further or alternatively, Audi Australia's, failure to comply with its express warranty.

101. By reason o f the matters pleaded in paragraphs 84, 85, and 9 8 to 100 , Audi AG, and further or alternatively Audi Australia is liable under s 74G of the TPA to compensate the Applicant and Group Members for the loss or damage which they have suffered.

Failure to comply with express warranty: ACL

102. By reason of the matters pleaded in paragraph 86, there was a statutory guarantee imposed by s 59 of the ACL that Audi AG, would comply with any express warranty it gave or made in relation to the affected Audi diesel vehicles.

103. By reason of placing compliance plates on the affected Audi diesel vehicles, Audi AG, and further or alternatively Audi Australia gave or made an express warranty that the affected Audi diesel vehicles complied with the applicable national standards.

104. By reason of the conduct pleaded in paragraph 45, Audi AG, further or alternatively Audi Australia, failed to comply with the express warranty it gave or made because the affected Audi diesel vehicles failed to comply with ADR 79, which was a national standard for the purposes of the Motor Vehicle Standards Act.

105. For the purposes of s 271(1) of the ACL, the Applicant and Group M embers are affected persons in relation to the affected Audi diesel vehicles.

106. Accordingly, by reason of the failure to comply with the guarantee imposed by s 54 of the ACL, the Applicant and Group Members are entitled under s 271 of the ACL to recover damages from Audi AG, and further or alternatively Audi Australia.

PART H. FAILURE TO COMPLY WITH SAFETY STANDARDS

107. By reason of the matters pleaded in paragraph 52 and conduct pleaded in paragraph 45:

    a. the affected Audi diesel vehicles were consumer goods for which there was a safety standard in force , namely ADR 79 , and which di d not comply with the standard, for the purposes of s 106 of the ACL;

    b. the affected Audi diesel vehicles were consumer goods for which there was a prescribed consumer product safety standard in force , namely ADR 79 , and

VW FOIA, EPA 06/20/2017 2017-FFP_038694

which did not comply with the product safety standard, for the purposes of s 65C of the TPA;

c. Audi AG supplied consumer goods in contravention of s 65C of the TPA and s 106(1) of the ACL;

d. Audi AG manufactured , possessed and had control over consumer goods in contravention of s 106(3) of the ACL;

e. Audi Australia supplied consumer goods in contravention of s 65C of the TPA and s 106(1)(3) of the ACL; and

f. Audi Australia possessed and had control over consumer goods in contravention of s 106(3) of the ACL.

108. The Applicant and Group Members suffered loss or damage , as set out below at paragraphs 133 to 137, which loss or damage they would not have suffered had the vehicles complied with ADR 79 and which was a result of a defect in the vehicles (being the presence of the defeat device).

PART I. TORT OF DECEIT

Deceit by Audi Australia (including as agent of Audi AG)

109. As pleaded in paragraph 56, Audi Australia made the Audi Compliance Representation (as defined in paragraph 55 above) to the Applicant and Group Members:

a. knowing it to be untrue as pleaded in paragraphs 45 and 46;

b. alternatively, recklessly indifferent to its truth;

c. intending that the Applicant and Group Members would rely on it in deciding to acquire an affected Audi diesel vehicle.

110. As pleaded in paragraph 57, the Applicant and Group Members did in fact rely on the Audi Compliance Representation to a cquire an interest in an affected Audi diesel vehicle.

111. As pleaded in paragraphs 133 to 137, the Applicant and Group Members have suffered loss and damage by reason of their acquisition of an affected Audi diesel vehicle, for which Audi Australia is liable.

VW FOIA, EPA 06/20/2017 2017-FFP_038695

112. Further and alternatively, Audi Australia is and was at all material times:

a. Audi AG's exclusive distributor in Australia, including of affected VW diesel vehicles; and

b. Audi AG's agent.

113. Audi AG knew and intended that Audi Australia would make the Audi Compliance Representation in the course of Audi Australia's importation and distribution of the affected Audi diesel vehicles to persons acquiring such a vehicle.

114. Audi AG thereby authorised Audi Australia, and/or intended VW Australia to make the Audi Compliance Representation to the Applicant and Group Members when Audi AG:

a. knew it was untrue as pleaded in paragraphs 45 to 46;

b. intended that the Applicant and Group Members would rely on it in deciding to acquire an affected Audi diesel vehicle.

115. As pleaded in paragraphs 133 to 137, the Applicant and Group Members have suffered loss and damage by reason of their acquisition of an affected Audi diesel vehicle.

116. By reason of the matters pleaded in paragraphs 112 to 114, Audi AG is liable for the Applicant's and Group Members' loss and damage arising from their reliance on the Audi Compliance Representation made by Audi Australia.

Deceit by Audi AG

117. As pleaded in paragraphs 55, Audi AG made the Audi Compliance Representation to the Applicant and Group Members:

a. knowing it to be untrue;

b. intending that the Applicant and Group Members would rely on it in deciding to acquire an affected Audi diesel vehicle.

118. As pleaded in paragraph 57, the Applicant and Group Members did in fact rely on the Audi Compliance Representation to purchase or otherwise acquire an interest in an affected Audi diesel vehicle.

VW FOIA, EPA 06/20/2017 2017-FFP_038696

119. As pleaded in paragraphs 133 to 137, the Applicant and Group Members have suffered loss and damage by reason of their acquisition of an affected Audi diesel vehicle, for which VW AG is liable.

Deceit by VW AG

120. VW AG knew and intended that Audi AG and/or Audi Australia would make the Audi Compliance Representation in the course of manufacturing, supplying, and otherwise dealing with the affected Audi diesel vehicles as vehicles tha t were for use as road vehicles, and further or alternatively, affixing a compliance plate certifying compliance with Australian vehicle standards.

121. VW AG thereby authorised Audi AG and/or Audi Australia , and/or intended Audi AG and/or Audi Australia to mak e the Audi Compliance Representation to the Applicant and Group Members when VW AG:

    a. knew it was untrue as pleaded in paragraphs 45 to 46;

    b. intended that the Applicant and Group Members would rely on it in deciding to acquire an affected Audi diesel vehicle.

122. As pleaded in paragraphs 133 to 137, the Applicant and Group Members have suffered loss and damage by reason of their acquisition of an affected Audi diesel vehicle.

123. By reason of the matters pleaded in paragraphs 120 to 122, VW AG is liable for the Applicant's and Group Members' loss and damage arising from their reliance on the Audi Compliance Representation made by Audi AG and/or Audi Australia.

PART K. ACCESSORIAL LIABILITY

124. Audi AG engaged in the following conduct:

    a. it manufactured affected Audi diesel vehicles for sale in Australia, containing defeat devices, as pleaded in paragraph 38 above;

    b. further or alternatively Audi AG sought and obtained approval to fix compliance plates to the affected Audi diesel vehicles , as pleaded in paragraph 46 above; and/or

    c. further or alternatively Audi AG fitted affected Audi diesel vehicles with compliance plates.

VW FOIA, EPA 06/20/2017 2017-FFP_038697

125. Further, Audi AG engaged in the conduct alleged in the previous paragraph with the knowledge that Audi Australia would supply the affected Audi diesel vehicles to Audi dealers and other retailers, who in turn would sell the affected Audi diesel vehicles to Australian consumers.

126. By reason of the matters alleged in paragraphs 124 and 125 above, Audi AG was knowingly concerned in, or a party to, or aided, abetted, counselled or procured, the following contraventions:

    a. Audi Australia's contravention of s 52 of the TPA and s 18 of the ACL, in relation to the Audi Compliance Representation, as pleaded in paragraph 60 above;

    b. Audi Australia's contravention of s 52 of the TPA and s 18 of the ACL, in relation the Audi ADR 79 Compliance Representation, as pleaded in paragraph 64 above;

    c. Audi Australia's contravention of s 52 of the TPA and s 18 of the ACL, in relation to Audi Australia's silence, as pleaded in paragraph 70 above;

    d. Audi Australia's contraventions of s 53(a) and (c) of the TPA, and s 29(1)(b) and (g) of the ACL, in relation to the Audi false and misleading representation, as pleaded in paragraphs 73 and 74 above;

    e. Audi Australia's contravention of s 51AB of the TPA and s 21 of the ACL, in relation to Audi Australia's unconscionability, as pleaded in paragraph 83 above;

    f. Audi Australia's contravention of s 65C of the TPA and s 106 of the ACL, as pleaded in paragraph 107 above.

127. Audi Australia engaged in the following conduct:

    a. it sought and obtained approval to fix compliance plates to the affected Audi diesel vehicles;

    b. it fitted affected Audi diesel vehicles with compliance plates;

    c. it supplied affected Audi diesel vehicles to Audi dealers and other retailers.

128. Further, Audi Australia engaged in the conduct alleged in the previous paragraph with the knowledge that Audi AG, and further or alternatively VW AG, had installed defeat devices in the affected Audi diesel vehicles.

VW FOIA, EPA 06/20/2017 2017-FFP_038698

129. By reason of the matters alleged in paragraphs 127 and 128 above, Audi Australia was knowingly concerned in, or a party to, or aided, abetted, counselled or procured, the following contraventions by Audi AG:

    a. Audi AG's contravention of s 52 of the TPA and s 18 of the ACL, in relation to the Audi Compliance Representation, as pleaded in paragraph 59 above;

    b. Audi AG's contravention of s 52 of the TPA and s 18 of the ACL, in relation the Audi ADR 79 Compliance Representation, as pleaded in paragraph 64 above;

    c. Audi AG's contravention of s 52 of the TPA and s 18 of the ACL, in relation to Audi silence, as pleaded in paragraph 67 above;

    d. Audi AG's contraventions of s 53(a) and (c) of the TPA, and s 29(1)(b) and (g) of the ACL, in relation to Audi AG's false and misleading representation, as pleaded in paragraphs 71 and 72 above;

    e. Audi AG's contravention of s 51AB of the TPA and s 21 of the ACL, in relation to Audi AG's unconscionability, as pleaded in paragraph 77 above;

    f. Audi AG's contravention of s 65C of the TPA and s 106 of the ACL, as pleaded in paragraph 107 above.

130. Further or in the alternative, VW AG engaged in the following conduct:

    a. VW AG designed and developed the defeat device for installation and use in vehicles including, relevantly, the affected Audi diesel vehicles; and

    b. further or alternatively VW AG supplied components to Audi AG, including engines and engine management modules, which incorporated the defeat device;

131. Further, VW AG engaged in the conduct alleged in the previous paragraph with the knowledge that Audi Australia would supply the affected Audi diesel vehicles to Audi dealers and other retailers, who in turn would sell the affected Audi diesel vehicles to Australian consumers.

132. By reason of the matters alleged in paragraphs 130 and 131 above, VW AG was knowingly concerned in, or a party to, or aided, abetted, counselled or procured, the following contraventions:

VW FOIA, EPA 06/20/2017 2017-FFP_038699

a. Audi Australia's contravention of s 52 of the TPA and s 18 of the ACL, in relation to the Audi Compliance Representation, as pleaded in paragraph 60 above;

b. Audi Australia's contravention of s 52 of the TPA and s 18 of the ACL, in relation the Audi ADR 79 Compliance Representation, as pleaded in paragraph 64 above;

c. Audi Australia's contravention of s 52 of the TPA and s 18 of the ACL, in relation to Audi Australia's silence, as pleaded in paragraph 70 above;

d. Audi Australia's contraventions of s 53(a) and (c) of the TPA, and s 29(1)(b) and (g) of the ACL, in relation to the Audi false and misleading representation, as pleaded in paragraphs 73 and 74 above;

e. Audi Australia's contravention of s 51AB of the TPA and s 21 of the ACL, in relation to Audi Australia's unconscionability, as pleaded in paragraph 77 above;

f. Audi Australia's contravention of s 65C of the TPA and s 106 of the ACL, as pleaded in paragraph 107 above;

g. Audi AG's contravention of s 52 of the TPA and s 18 of the ACL, in relation to the Audi Compliance Representation, as pleaded in paragraph 59 above;

h. Audi AG's contravention of s 52 of the TPA and s 18 of the ACL, in relation the Audi ADR 79 Compliance Representation, as pleaded in paragraph 64 above;

i. Audi AG's contravention of s 52 of the TPA and s 18 of the ACL, in relation to Audi silence, as pleaded in paragraph 67 above;

j. Audi AG's contraventions of s 53(a) and (c) of the TPA, and s 29(1)(b) and (g) of the ACL, in relation to Audi AG's false and misleading representation, as pleaded in paragraphs 71 and 72 above;

k. Audi AG's contravention of s 51AB of the TPA and s 21 of the ACL, in relation to Audi AG's unconscionability, as pleaded in paragraph 77 above;

l. Audi AG's contravention of s 65C of the TPA and s 106 of the ACL, as pleaded in paragraph 107 above.

VW FOIA, EPA 06/20/2017 2017-FFP_038700

PART L. LOSS OR DAMAGE SUFFERED BY THE APPLICANT AND GROUP MEMBERS AND RELIEF SOUGHT

133. The Applicant and Group Members acquired an interest in an affected Audi diesel vehicle that had no value at the time that the interest was acquired, as the vehicle was not lawfully able to be registered in Australia or used on a public road in Australia.

134. By reason of the matters pleaded in the previous paragraph, each of the Applicant and Group Members has suffered loss and damage equivalent to the entire consideration given by them to acquire their interest in an affected Audi diesel vehicle.

135. Further or in the alternative, the loss and damage suffered by each of the Applicant and Group Members is the difference between the consideration given by them to acquire their interest in an affected Audi diesel vehicle and the true value of the vehicle at the time of acquiring the interest (including the true value if the defects in the vehicle had been known).

136. Further or in the alternative, the loss and damage suffered by each of the Applicant and Group Members is the diminution in the value of their interest in the relevant affected Audi diesel vehicle by virtue of the revelation that the affected VW diesel vehicles contain a defeat device.

Particulars

The loss and damage includes the impact of the negative publicity flowing from:

(i) the revelation of the use of defeat devices; and/or

(ii) the necessary work required to rectify the vehicle to ensure the proper functioning of pollution control mechanisms,

on the second-hand value of the relevant vehicle.

137. Further or in the alternative, the loss and damage of the Applicant and each of the Group Members includes any expense or inconvenience suffered by them as a consequence of any recall of the relevant vehicle or any other steps to rectify any defects in the relevant vehicle.

VW FOIA, EPA 06/20/2017 2017-FFP_038701

138. The Applicant and Group Members have suffered the loss and damage pleaded in paragraphs 133 to 137 above by the conduct, or alternatively because of the conduct, of the Respondents pleaded in paragraphs 59, 60, 71, 73, 77, 80 and 83 above.

139. Further or in the alternative, in the absence of the conduct pleaded in paragraph 64 above, the Commonwealth would not have approved the affected Audi diesel vehicles as compliant with ADR 79 and the vehicles would not have been sold in Australia, and the Applicant and Group Members have thereby suffered the loss and damage pleaded in paragraphs 133 to 137 above by the conduct, or alternatively because of the conduct, of the Respondents pleaded in paragraphs 64, 72, 74, 77, 80 and 83 above.

140. Further or in the alternative, by reason of the matters pleaded in paragraphs 66 and 69, the Applicant and Group Members have suffered the loss and damage pleaded in paragraphs 133 to 137 above by the conduct, or alternatively because of the conduct, of the Respondents pleaded in paragraphs 67 and 70 above.

141. Further or in the alternative, the Applicant repeats paragraphs 89 to 91.

142. Further or in the alternative, the Applicant and Group Members have suffered the loss and damage pleaded in paragraphs 133 to 137 above which they are entitled to recover from the Respondents as pleaded in paragraphs 96 and 97 above.

143. Further or in the alternative, the Applicant repeats paragraphs 100 and 101.

144. Further or in the alternative, the Applicant and Group Members have suffered the loss and damage pleaded in paragraphs 133 to 137 above which they are entitled to recover from the Respondents as pleaded in paragraph 106 above.

145. Further or in the alternative, the Applicant and Group Members have suffered the loss and damage pleaded in paragraphs 133 to 137 above by the conduct, or alternatively because of the conduct, of the Respondents pleaded in paragraphs 107 and 108 above.

146. Further or in the alternative, the Applicant repeats paragraphs 111, 115 and 119.

147. Further or in the alternative, by reason of the matters pleaded in paragraphs 138 to 140 and 145 above, the Applicant and Group Member have suffered the loss and damage pleaded in paragraphs 133 to 137 above by reason of the conduct of the Respondents pleaded in paragraphs 124 to 132 above.

VW FOIA, EPA 06/20/2017 2017-FFP_038702

148. By engaging in the conduct pleaded in paragraphs 109 to 123 above, Audi AG, Audi Australia and VW AG showed a conscious and contumelious disregard for the rights of the Applicant and Group Members, which conduct is deserving of punishment by an award of exemplary damages.

149. The Applicant claims, in his/her own right and on behalf of the Group Members, the relief specified in the application, namely:

    a. an order pursuant to s 87 of the TPA and s 243 of the ACL requiring the respondents to refund money or property received as consideration for the acquisition of an interest in affected Audi diesel vehicles;

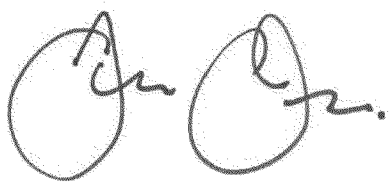
    b. further or alternatively, damages;

    c. further, exemplary damages;

    d. costs; and

    e. such other orders as the Court thinks fit.

Date: 22 November 2015



Jason Geisker

MAURICE BLACKBURN PTY LTD

Solicitor for the Applicant

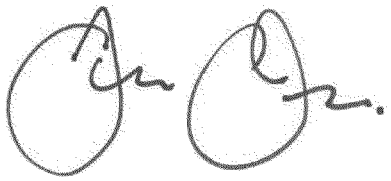
This pleading was prepared by Maurice Blackburn, Sandy Dawson and Declan Roche of counsel and settled by Cameron Moore SC.

VW FOIA, EPA 06/20/2017 2017-FFP_038703

Certificate of lawyer

I Jason Geisker certify to the Court that, in relation to the statement of claim filed on behalf of the Applicant, the factual and legal material available to me at present provides a proper basis for each allegation in the pleading.

Date: 22 November 2015



Jason Geisker

VW FOIA, EPA 06/20/2017 2017-FFP_038704

Schedule

No. of 2015

Federal Court of Australia
District Registry: NSW
Division: General

Respondents

Second Respondent: **Audi Australia Pty Ltd ACN 077 092 776**

Third Respondent: **Volkswagen AG**

Date: 22 November 2015

VW FOIA, EPA 06/20/2017 2017-FFP_038705

NOTICE OF FILING

This document was lodged electronically in the FEDERAL COURT OF AUSTRALIA (FCA) on 22/11/2015 10:07:32 PM AEDT and has been accepted for filing under the Court's Rules. Details of filing follow and important additional information about these are set out below.

Details of Filing

Document Lodged:	Statement of Claim - Form 17 - Rule 8.06(1)(a)
File Number:	NSD1473/2015
File Title:	Steven Roe v Skoda Auto a.s. & Ors
Registry:	NEW SOUTH WALES REGISTRY - FEDERAL COURT OF AUSTRALIA

Dated: 23/11/2015 2:37:58 PM AEDT

Registrar

Important Information

As required by the Court's Rules, this Notice has been inserted as the first page of the document which has been accepted for electronic filing. It is now taken to be part of that document for the purposes of the proceeding in the Court and contains important information for all parties to that proceeding. It must be included in the document served on each of those parties.

The date and time of lodgment also shown above are the date and time that the document was received by the Court. Under the Court's Rules the date of filing of the document is the day it was lodged (if that is a business day for the Registry which accepts it and the document was received by 4.30 pm local time at that Registry) or otherwise the next working day for that Registry.

Form 17
Rule 8.05(1)(a)

Statement of claim

No.

Filed on behalf of (name & role of party) The Applicant
Prepared by (name of person/lawyer) Jason Geisker
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of 2015

Federal Court of Australia
.
District Registry: NSW

Division: General

[Form approved 01/08/2011]

but not including:

c. the Respondents , or any wholly or partly owned subsidiary of either of the Respondents;

d. any Skoda or Volkswagen authorised dealer; or

e. any Judge of the Federal Court of Australia

(**the Group**).

Particulars

(i) *On or about 19 January 2012 the Applicant purchased a diesel Skoda Yeti wagon 103TDI SUV from a Skoda dealership in Rosebery NSW;*

(ii) *In the case of the Group Members, particulars of acquis ition may be provided following the resolution of common questions.*

3. As at the date of the commencement of this proceeding there were seven or more Group Members.

The Respondents

4. The First Respondent, Skoda Auto a.s. (**Skoda**), at all material times:

a. is and was a company incorporated pursuant to the laws of and registered in the Czech Republic and capable of being sued;

b. is and was a foreign corporation within the meaning of s 4 of the *Trade Practices Act 1974* (Cth) (**TPA**);

c. is and was a corporation within th e meaning of s 4 of the *Competition and Consumer Act 2010* (Cth) (the **CCA**);

d. is and was a foreign corporation within the meaning of s 4 of the CCA;

e. is and was a corporation within the meaning of s 5 of the *Motor Vehicle Standards Act 1989* (Cth) (the **Motor Vehicle Standards Act**);

f. manufactured the affected Skoda diesel vehicles (as defined in paragraph 38), for the purpose of their supply to consumers in Australia;

VW FOIA, EPA 06/20/2017 2017-FFP_038708

g. is and was a "manufacturer" of the affected Skoda diesel vehicles within the meaning of s 74A of the TPA and s 7 of the *Australian Consumer Law* (**ACL**) being Schedule 2 of the CCA;

h. supplied affected Skoda diesel vehicles to Australia;

i. further or alternatively, distributed affected Skoda diesel vehicles in Australia;

j. further or alternatively, advertised and promoted affected Skoda diesel vehicles in Australia;

k. supplied new vehicles within the meaning of the Motor Vehicle Standards Act;

l. is and was subject to the TPA and the ACL because:

(i) Skoda was carrying on a business in Australia;

(ii) further or alternatively, the conduct pleaded in paragraphs 4(i) to (j) occurred in Australia;

(iii) further or alternatively, by affixing compliance plates to the affected Skoda diesel vehicles supplied in Australia, Skoda made the Skoda Compliance Representation (as pleaded in paragraph 55) in Australia; and

m. further, or alternatively, is and was in the business of marketing and distributing automotive products including the affected Skoda diesel vehicles, internationally and in Australia, but did not have a place of business in Australia.

5. The Second Respondent, Volkswagen Group Australia Pty Ltd ACN 093 117 876 (**VW Australia**), at all material times:

a. is and was a company registered pursuant to the *Corporations Act 2001* (Cth) (**Corporations Act**) and capable of being sued;

b. is and was a trading corporation within the meaning of s 4 of the TPA;

c. is and was a corporation within the meaning of s 4 of the CCA;

d. is and was a corporation within the meaning of s 5 of the Motor Vehicle Standards Act;

VW FOIA, EPA 06/20/2017 2017-FFP_038709

e. is and was the holder of the business names:

(i) Skoda Auto Australia ABN 14 093 117 876;

(ii) Skoda Australia ABN 14 093 117 876; and

(iii) Skoda Distributors ABN 14 093 117 876.

f. is and was a "manufacturer" of the affected Skoda diesel vehicles (as defined in paragraph 38), within the meaning of s 74A of the TPA and s 7 of the ACL being Schedule 2 of the CCA, on the basis that Skoda did not have a place of business in Australia and VW Australia imported Skoda diesel vehicles into Australia;

g. is and was a "supplier", within the meaning of s 4 of the TPA and ss 4 and 4C of the CCA and s 2 of the ACL, of the affected Skoda diesel vehicles;

h. distributed affected Skoda diesel vehicles in Australia;

i. further or alternatively, advertised and promoted affected Skoda diesel vehicles in Australia;

j. imported and supplied new vehicles within the meaning of the Motor Vehicle Standards Act, including the affected Skoda diesel vehicles;

k. is and was a wholly-owned subsidiary of VW AG; and

l. is and was in the business of marketing, importing and distributing automotive products including the affected Skoda diesel vehicles in Australia.

6. The Third Respondent, Volkswagen AG (**VW AG**), at all material times:

a. is and was a company incorporated pursuant to the laws of and registered in the Federal Republic of Germany and capable of being sued;

b. is and was a foreign corporation within the meaning of s 4 of the TPA;

c. is and was a corporation within the meaning of s 4 of the CCA;

d. is and was a foreign corporation within the meaning of s 4 of the CCA;

e. is and was a corporation within the meaning of s 5 of the Motor Vehicle Standards Act;

f. is and was the parent company of VW Australia;

g. manufactured certain components for inclusion in the affected Skoda diesel vehicles (as defined in paragraph 38), for the purpose of their supply to consumers in Australia.

7. The Respondents are, and were at all material times, related parties within the meaning of s 50 the Corporations Act 2001.

PART B. COMPLIANCE REGIME FOR NEW CARS SOLD IN AUSTRALIA

Motor Vehicle Standards Act

8. At all material times, the Motor Vehicle Standards Act prohibited a person from supplying to the market a new vehicle that did not comply with national standards and prohibited a person from supplying to the market a vehicle that did not have fitted an identification plate of a type prescribed by the Motor Vehicle Standards Act, namely a plate certifying compliance with those national standards (**compliance plate**).

Particulars

(i) *Motor Vehicle Standards Actss 10(1) and 14.*

9. At all material times, the Motor Vehicle Standards Act prohibited the importation of a new road vehicle that did not comply with national standards and prohibited the importation of a new road vehicle that did not have a compliance place fitted.

Particulars

(i) *Motor Vehicle Standards Act s 18*

10. At all material times, the Motor Vehicle Standards Act:

a. required the importer of a road vehicle to do all things reasonable and necessary to ensure that when the vehicle was supplied to market it still complied with national standards and still had a compliance plate fitted;

b. prohibited the importer from modifying the vehicle in any way that made it not comply with national standards.

Particulars

VW FOIA, EPA 06/20/2017 2017-FFP_038711

(i) *Motor Vehicle Standards Act s 17.*

National Standards – Australian Design Rule 79

11. At all material times, Australian Design Rule 79 was a national standard for the purposes of the Motor Vehicle Standards Act (**Australian Design Rules** or **ADR**).

Particulars

(i) *The making of national standards is provided for in s 7 of the Motor Vehicle Standards Act which empowers the Minister to determine vehicle standards for road vehicles or vehicle components.*

(ii) *ADR 79/00 was originally determined in Road Vehicle (National Standards) Determination No 2 of 1999.*

(iii) *ADR 79/00 was remade in December 2005 as Vehicle Standard ADR 79/00 – Emission Control for Light Vehicles) 20 05, to comply with the requirements of the Legislative Instruments Act 2003.*

(iv) *The applicable versions of ADR 79 were:*

1. *Vehicle Standard (ADR 79/01 – Emission Control for Light Vehicles) 2005;*

2. *Vehicle Standard (ADR 79/02 – Emission Control for Light Vehicles) 2005; and*

3. *Vehicle Standard (ADR 79/03 – Emission Control for Light Vehicles) 2011.*

12. At all material times, the Australian Design Rules were a mandatory safety standard for the purposes of s 65C of the TPA and 106 of the ACL.

Particulars

(i) *At relevant times during the currency of the TPA, pursuant to s 41 of the Motor Vehicle Standards Act, a national standard was taken to be a prescribed consumer product safety standard for the purposes of s 65C of the TPA;*

VW FOIA, EPA 06/20/2017 2017-FFP_038712

(ii) *Pursuant to s 41 of the Motor Vehicle Standards Act, a national standard is taken to be a safety standard for the purposes of s 106 of the ACL.*

13. At all material times, Australian Design Rule 79 was applicable to the affected Skoda diesel vehicles, being M and N category vehicles with a gross vehicle mass less than or equal to 3.5 tonnes.

Particulars

(i) *Australian Design Rule 79/01, 79/02 and 79/03, reg 2.1.*

14. At all material times, ADR 79 applied to the affected Skoda diesel vehicles as follows:

a. ADR 79/01: new model Skoda diesel vehicles manufactured between 1 January 2006 and 30 June 2008 and all other VW diesel vehicles manufactured between 1 January 2007 and 30 June 2010;

b. ADR 79/02: new model Skoda diesel vehicles manufactured between 1 July 2008 and 31 October 2013 and all other Skoda diesel vehicles manufactured between 1 July 2010 and 31 October 2016;

c. ADR 79/03: new model Skoda diesel vehicles manufactured between 1 November 2013 and 31 October 2016.

Requirements of ADR 79

15. At all material times, the Australian Design Rules specified maximum permitted levels of exhaust emissions, including nitrogen oxides, depending on the gross vehicle mass of the vehicle.

Particulars

(i) *ADR 79/01, 79/02 and 79/03, Appendix A, rule 5.2.1.*

16. At all material times, pursuant to ADR 79, vehicle manufacturers or their authori sed representative were required to apply for Commonwealth approval with regard to exhaust emissions, crankcase emissions, evaporative emissions and durability of pollution control devices.

Particulars

VW FOIA, EPA 06/20/2017 2017-FFP_038713

(i) *ADR 79/01, 79/02 and 79/03, Appendix A, rule 3.1;*

(ii) *Approvals were obtained through the Road Vehicle Certification System administered by the Vehicle Safety Standards Branch within the Commonwealth Department of Transport and Regional Services.*

17. From July 2008 onwards, vehicle manufacturers were required to sub mit a description of the provisions taken to prevent tampering with and modification of the emission control computer.

Particulars

(i) *ADR 79/02 and 79/03, Appendix A, rule 3.1*

18. At all material times, ADR 79 required that the components liable to affect the em ission of pollutants be so designed, constructed and assembled as to enable the vehicle, in normal use, despite the vibration to which they may be subjected, to comply with the provisions of ADR 79.

Particulars

(i) *ADR 79/01, 79/02 and 79/03, Appendix A, rule 5.1.1.*

19. At all material times, ADR 79 prohibited the use of a defeat device in a new vehicle.

Particulars

(i) *ADR 79/01, 79/02 and 79/03, Appendix A, rule 5.1.2.1.*

Registration Requirements

20. At all material times, it was an offence under State and Territory la ws for a person to use a motor vehicle on a road that did not comply with the applicable vehicle standards for the vehicle.

Particulars

(i) *Road Transport (Vehicle Registration) Regulation 2007 (NSW), Reg. 52(1);*

(ii) *Road Safety (Vehicles) Regulations 2009 (Vic), Reg 258(2) (formerly, Road Safety (Vehicles) Regulations 1999 (Vic), Reg 819(3);*

VW FOIA, EPA 06/20/2017 2017-FFP_038714

(iii) *Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 2010 (Qld), Reg. 5(1) (formerly Transport Operations (Road Use Management– Vehicle Standards and Safety) Regulation 1999, Reg. 5(1));*

(iv) *Road Traffic Act 1961 (SA), s 116(1), 117(1) and 118(1);*

(v) *Road Traffic (Vehicles) Regulations 2014 (WA), Reg 232 (formerly, Road Traffic (Vehicle Standards) Regulations 2002, Reg. 8);*

(vi) *Road Transport (Vehicle R egistration) Regulation 2000 (ACT), Reg 109(2);*

(vii) *Motor Vehicles (Standards) Regulations (NT), Reg 35*

(viii) *Vehicles and Traffic (Vehicle Standards) Regulations 2014 (Tas), Reg 4(1)(a) (formerly, Vehicles and Traffic (Vehicle Standards) Regulation 2001 (Tas), Reg 4(1)(a).*

21. At all material times, ADR 79 applied to the design and construction of motor vehicles and accordingly was an applicable vehicle standard for the purposes of State and Territory laws.

Particulars

(i) *Road Transport (Vehicle Registration) Regulation 2007 (NSW), Schedule 2, clause 11 and 12;*

(ii) *Road Safety (Vehicles) Regulation 2009 (Vic), Schedule 2, clause 19 and 20 (formerly, Road Safety (Vehicles) Regulations 1999 (Vic), Schedule 8, clause 19 and 20);*

(iii) *Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 2010 (Qld), Schedule 1, clause 7 and 8 (formerly, Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 1999 (Qld), Schedule 1, clause 7 and 8);*

(iv) *Road Traffic (Light Vehicle Standards) Rules 2013 (SA), Reg 19 and 20 (formerly, Road Traffic (Light Vehicle Standards) Rules 1999 (SA), Reg. 19 and 20);*

(v) *Road Traffic (Vehicles) Regulations 2014 (WA), Reg 236 and 238 (formerly, Road Traffic (Vehicle Standards) Rules 2002 (WA) Rule 13 and 14, respectively);*

(vi) *Road Transport (Vehicle Registration) Regulation 2000 (ACT), Schedule 1, clause 1.15 and 1.16;*

(vii) *Motor Vehicles (Standards) Regulations - Australian Vehicle Standards Rule (1989) (NT), Reg 19 and 20;*

(viii) *Vehicles and Traffic (Vehicle Standards) Regulation* 2001 *(Tas), Reg 19 and 20.*

22. At all material times, it was an offence under State and Territory laws for a person to use an unregistered motor vehicle on a road.

Particulars

(i) *Road Transport Act 2013 (NSW), s 68(1) (formerly, Road Transport (Vehicle Registration) Act 1997, s 18;*

(ii) *Road Safety Act 1986 (Vic), s 7(1);*

(iii) *Transport Operations (Road Use Management—Vehicle Registration) Regulation 2010 (QLD), Reg. 11 (formerly Transport Operations (Road Use Management – Vehicle Registration) Regulation 1999 (Qld), Reg 13;*

(iv) *Motor Vehicles Act 1959 (SA), s. 9*

(v) *Road Traffic (Vehicles) Act 2012 (WA), s. 4 (formerly, Road Traffic Act 1974 WA, s 15);*

(vi) *Road Transport (Vehicle Registration) Act 1999 (ACT), s. 18(1);*

(vii) *Traffic Act NT, s. 33(1);*

(viii) *Vehicle and Traffic Act 1999 (Tas), s. 127(1).*

23. At all material times, for a motor vehicle to be eligible for registration without conditions under State and Territory laws, it was required to comply with the applicable vehicle standards for the vehicle.

VW FOIA, EPA 06/20/2017 2017-FFP_038716

Particulars

(i) *Road Transport (Vehicle Registration) Regulation 2007 (NSW), Reg. 6(1);*

(ii) *Road Safety (Vehicles) Regulation 2009 (Vic), Reg. 14(1) and 29(1) (formerly Road Safety (Vehicles) Regulations 1999 (Vic) Reg. 202(1) and 214(1), respectively);*

(iii) *Transport Operations (Road Use Management—Vehicle Registration) Regulation 2010 (QLD), Reg. 9 (formerly, Transport Operations (Road Use Management—Vehicle Registration) Regulation 1999 (QLD), Reg. 8);*

(iv) *Motor Vehicles Act 1959 (SA), s 24(1);*

(v) *Road Traffic (Vehicles) Regulations 2014 (WA), Reg. 34 (f ormerly, Road Traffic (Licensing) Regulations 1975, Reg 9(2));*

(vi) *Road Transport (Vehicle Registration) Regulation 2000 (ACT), Reg. 26(1);*

(vii) *Motor Vehicles Act (NT), s. 8(a)*

(viii) *Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2010 (Tas) , Reg. 52(1) (formerly, Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2000 (Tas), Reg. 45(1)).*

24. At all material times, an application for registration or renewal of registration could be refused under State and Territory laws i f the vehicle did not comply with the applicable vehicle standards.

Particulars

(i) *Road Transport (Vehicle Registration) Regulation 2007 (NSW), Reg 6(1), 12(1) and 30(7);*

(ii) *Road Safety (Vehicles) Regulation 2009 (Vic), Reg 14(1), 29(1) and 69(4) (formerly R oad Safety (Vehicles) Regulations 1999 (Vic) Reg 202, 214(1) and 227(7), respectively);*

(iii) *Transport Operations (Road Use Management—Vehicle Registration) Regulation 2010 (QLD), Reg. 17(1) and 43(11) (formerly, Transport Operations (Road Use Management —Vehicle Registration) Regulation 1999 (QLD), Reg. 14(1) and 37(11), respectively);*

(iv) *Motor Vehicles Act 1959 (SA), s 24(3);*

(v) *Road Traffic (Vehicles) Act 2012 (WA), s 5(3)(a)(i) (formerly, the Road Traffic Act 1974 (WA), s. 17(2));*

(vi) *Road Transport (Vehicle Registrati on) Regulation 2000 (ACT), Reg 26(1), 32(1)(a) and 68(9)(a);*

(vii) *Motor Vehicles Act (NT), s 8;*

(viii) *Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2010 (Tas), Reg 57(1), 59(2) and 68(2) (formerly, Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2000 (Tas), Reg. 49(1), 51(2)(a) and 60(2), respectively).*

25. At all material times, a motor vehicle's registration could be suspended or cancelled under State and Territory laws if the vehicle did not comply with the ap plicable vehicle standards.

Particulars

(i) *Road Transport (Vehicle Registration) Regulation 2007 (NSW), Reg 41(1);*

(ii) *Road Safety (Vehicles) Regulation 2009 (Vic), Reg. 114(b) , 115(1) and 117 (formerly Road Safety (Vehicles) Regulations 1999 (Vic) Reg. 245(1)(b) and 245(2), respectively);*

(iii) *Transport Operations (Road Use Management—Vehicle Registration) Regulation 2010 (QLD), Reg 58 (1) and (2) (formerly, Transport Operations (Road Use Management—Vehicle Registration) Regulation 1999 (QLD), Reg. 48(1) and (2));*

(iv) *Motor Vehicles Act 1959 (SA), s 55A(1);*

(v) *Road Traffic (Vehicles) Act 2012 (WA), s 9 (1) and (2) (formerly, the Road Traffic Act 1974 (WA), s. 23A);*

(vi) *Motor Vehicles Act (NT), s 102(2)(c)*

(vii) *Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2010 (Tas), Reg 52(1)(a) and 72(1)(b) (formerly, Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2000 (Tas), Reg. 45(1)(a) and 64(1)(b)).*

26. At all material times, a motor vehicle's registration could be refused or suspended or cancelled if, at the relevant time:

a. under NSW laws:

(i) the vehicle is not an eligible vehicle;

(ii) the relevant authority reasonably believes that information given in the application for registration is false or misleading;

(iii) a defect notice issued in relation to the vehicle has not been complied with and the date for compliance specified in the notice has expired;

(iv) the relevant authority reasonably believes that the ownership, possession, control or description of the registrable vehicle (or of any part of the registrable vehicle) as recorded on the Register is uncertain;

(v) the registration has been issued erroneously;

b. under Victorian laws:

(i) the vehicle is not eligible for registration;

(ii) the relevant authority reasonably believes that information given in the application is false or misleading;

(iii) the relevant authority reasonably believes that the vehicle or part of the vehicle has, or may have, been illegally imported;

(iv) a vehicle defect notice relating to the vehicle has not been complied with and the date for compliance specified in the notice has expired;

(v) the relevant authority reasonably believes the ownership, possession, control or description of the vehicle as recorded on the register is uncertain;

(vi) the relevant authority reasonably believes the vehicle or part of the vehicle has, or may have, been illegally imported;

c. under Queensland laws:

(i) the relevant authority reasonably believes information given in the application is false or misleading;

(ii) the approval was issued because of a document or representation that is false or misleading or obtained or made in another improper way;

(iii) a defect notice issued in relation to the vehicle has not been complied with and the date for compliance specified in the notice had expired;

d. under South Australian laws:

(i) the relevant authority reasonably believes that information disclosed in the application for registration or any evidence provided by the applicant is or may be inaccurate, incomplete or misleading;

(ii) the relevant authority reasonably believes that information recorded in the register of motor vehicles in relation to the vehicle is or may be inaccurate, incomplete or misleading;

(iii) the vehicle was registered in error;

(iv) the vehicle has been suspended and the reason for suspension still exists following a period of notice;

e. under Australian Capital Territory laws:

(i) the vehicle is not an eligible vehicle;

(ii) the relevant authority believes on reasonable grounds that information given in, or in relation to, the application for registration is false, misleading or incomplete in a material particular;

(iii) a defect notice issued in relation to the vehicle has not been complied with and the date for compliance specified in the notice has expired;

(iv) the ownership, possession, control or description of the vehicle as recorded in the register is uncertain;

(v) the vehicle has been registered in error;

f. under Northern Territory laws:

(i) the registration of a motor vehicle has been obtained by fraud or deception;

(ii) the motor vehicle has been registered in error;

(iii) a defect notice issued in relation to the vehicle has not been complied with and the date for compliance or to show reasonable cause has expired;

g. under Tasmanian laws:

(i) the relevant authority reasonably believes that information given in or in relation to the application for registration is false or misleading;

(ii) the vehicle has been registered in error;

(iii) the vehicle is no longer eligible for registration;

(iv) the responsibility for the vehicle or the description of the vehicle as recorded in the register of motor vehicles and trailers is uncertain;

(v) a vehicle defect notice has been issued in respect of the vehicle, the time for compliance with the notice has passed, and the notice has not been complied with.

Particulars

(i) *Road Transport (Vehicle Registration) Regulation 2007 (NSW), reg 12(1) and 41(1);*

(ii) *Road Safety (Vehicles) Regulation 2009 (VIC), reg 29, 69(4), 114 and 117 (formerly, Road Safety (Vehicles) Regulations 1999 (VIC) reg 214(2), 227(7), 245(1) and 245(2), respectively);*

(iii) *Transport Operations (Road Use Management) Act 1995 (QLD) s 18(1) and Transport Operations (Ro ad Use Management —Vehicle Registration) Regulation 2010 (QLD), Reg. 17(1) and Schedule 7, clause 1 (formerly, Transport Operations (Road Use Management — Vehicle Registration) Regulation 1999 (QLD), reg 47);*

(iv) *Motor Vehicles Act 1959 (SA), s 24(3) and 55A(1);*

(v) *Road Transport (Vehicle Registration) Regulation 2000 (ACT), reg 32(1), 84(1);*

(vi) *Motor Vehicles Act (NT), s 102(2), 128A(14);*

(vii) *Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2010 (TAS), reg 57(2), 68(2) and 72(1) (formerly, Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2000 (TAS), reg 49(2) and 60(2), respectively).*

27. At all material times, State and Territory laws gave authorised officers and police officers the power to inspect a motor vehicle to dete rmine if it complied with the applicable vehicle standards, and on discovering that it did not, the power to:

a. issue a warning or a defect notice;

b. impose conditions on the use of the vehicle; or

c. prohibit the use of the vehicle.

VW FOIA, EPA 06/20/2017 2017-FFP_038722

Particulars

(i) *Road Transport Act 2013 (NSW), s 76 (4) (formerly, Road Transport (Vehicle Registration) Act 1997 s 26 (2)) and the Road Transport (Vehicle Registration) Regulation 2007 (NSW), Reg 70;*

(ii) *Road Safety Act 1986 (VIC), s 13(2) and 14;*

(iii) *Transport Operations (Road User Management) Act 1995 (Qld) s 34(2), s 36(1) and Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 2010 (Qld), Reg 8 (formerly, Transport Operations (Road Use Management – Vehicle Standards and Safety) Regulation 1999, Reg. 14);*

(iv) *Road Traffic Act 1961 (SA), s 40Q(2) and 145;*

(v) *Road Traffic (Administration) Act 2008 (WA), s 52(2) and Road Traffic (Vehicles) Act 2012 (WA), s 71(1) (formerly Road Traffic (Vehicle Standards) Regulations 2002, Reg 61 and 62(1));*

(vi) *Road Transport (Vehicle Registration) Act 1999 (ACT), s 25;*

(vii) *Motor Vehicles Act (NT), ss 128 and 128A;*

(viii) *Vehicles and Traffic Act 1999 (Tas), s 49(1)(f) and Vehicle and Traffic (Driver Licensing and Vehicle Registration) Regulations 2010 (Tas), Reg. 85 (formerly, Vehicle and Traffic (Dr iver Licensing and Vehicle Registration) Regulations 2000 (Tas), Reg. 68).*

PART C. DEFEAT DEVICES INSTALLED IN SKODA VEHICLES

28. During the period from approximately 2008 to 2015, certain Skoda vehicles contained a form of software in the vehicle's managemen t system designed to detect when the vehicle was undergoing an emissions test and activate or maximise emissions control systems in the vehicle so as to reduce the output of nitrogen oxide in a way that did not occur, or did not occur to the same extent, i n ordinary use of the vehicle or in ordinary driving conditions (**defeat device**).

VW FOIA, EPA 06/20/2017 2017-FFP_038723

Particulars of the number of affected vehicles

(i) *On about 22 September 2015, VW AG announced that approximately 11 million vehicles were affected by the defeat device issue worldwide;*

(ii) *On or about 7 October 2015, Volkswagen Australia announced that 5,148 affected Skoda vehicles had been sold in Australia*

(iii) *Further particulars of the exact number of Skoda vehicles sold in Australia with the defeat device installed, and its operation, will be supplied in due course, including following discovery.*

29. Under ordinary driving conditions, the defeat device de -activated parts of the vehicle's emission control system, or reduced the effectiveness of the emission control system, with the result that the vehicle's performance was enhanced but the vehicle emitted higher levels of nitrogen oxide.

30. VW AG designed and developed the defeat device for installation and use in vehicles bearing a VW, Audi or Skoda badge, manufactured and sold, relevantly, by VW AG itself and/or its related entities, including Volkswagen Australia, Audi AG, Audi Australia and Skoda Auto a.s.

31. Prior to 3 September 2015, Skoda had concealed from consumers and regulators that certain Skoda diesel vehicles contained the defeat de vice and the effect of that defeat device.

32. Skoda's concealment of the installation of the defeat device was deliberate, or alternatively was recklessly indifferent to the true position.

33. Further or in the alternative, the defeat device in certain Skoda di esel vehicles was contained in components supplied by VW AG, and:

a. prior to 3 September 2015, VW AG concealed from consumers and regulators that certain Skoda diesel vehicles contained the defeat device and the effect of the defeat device; and

b. VW AG's concealment of the installation of the defeat device was deliberate.

34. A purpose and function of the defeat device was to convince regulators who tested the emission levels of Skoda vehicles fitted with the defeat device, or alternatively relied on

VW FOIA, EPA 06/20/2017 2017-FFP_038724

test data submitted to them as to those emission levels, that these vehicles had lower emissions of nitrogen oxide in ordinary use than was the case.

35. Further, a purpose and function of the defeat device was to convince relevant regulators who tested the emission levels of Skoda vehicles fitted with the defeat device, or alternatively relied on test data submitted to them as to those emission levels, that those vehicles complied with relevant emission control restrictions for nitrogen oxide, when this was not the case.

Particulars

The relevant emission control restrictions include:

(i) *European emissions standards, Euro IV (commenced January 2005), Euro V (commenced September 2011) and Euro VI (commenced September 2014);*

(ii) *United States EPA emissions standards and Californian LEV-II standards;*

(iii) *Australian standards ADR 79.*

36. The emission control systems that are activated or maximised by the defeat device, when the device detects an emission test, operate so as to reduce nitrogen oxide emissions, but, if activated or maximised in ordinary driving conditions would reduce nitrogen oxide emissions at the expense of vehicle performance, fuel economy.

37. A purpose and function of the defeat device was to persuade relevant regulators and consumers that Skoda vehicles fitted with such a device had a combination of emissions control, performance and fuel economy that was in fact impossible for that vehicle to achieve in ordinary use or ordinary driving conditions.

PART D. AFFECTED SKODA DIESEL VEHICLES IN AUSTRALIA

38. At all material times, Skoda manufactured for sale in Australia the following types of diesel vehicles which were fitted with a four cylinder "EA 189" 1.6L or 2.0L engine and which contained a defeat device (as defined in paragraph 28 above) (the **affected Skoda diesel vehicles**):

a. Octavia;

VW FOIA, EPA 06/20/2017 2017-FFP_038725

b. Yeti; and

c. Superb.

Defeat device

39. At all material times, Skoda was aware that, or alternatively was recklessly indifferent as to whether, that the affected Skoda diesel vehicles had a defeat device.

40. At all material times, Skoda was aware that the purpose and function of the defeat device was as pleaded in paragraphs 34 to 37 above.

41. Further or alternatively, VW AG was aware that the affected Skoda diesel vehicles had a defeat device.

42. Further or alternatively, VW AG was aware that the purpose and function of the defeat device was as pleaded in paragraphs 34 to 37 above.

43. At all material times, VW Australia was aware that, or alternatively was recklessly indifferent as to whether, the affected Skoda diesel vehicles, or alternatively some of the affected Skoda diesel vehicles, had a defeat device.

44. At all material times, VW Australia was aware that the purpose and function of a defeat device was as pleaded in paragraphs 34 to 37 above.

45. By reason of the matters pleaded in paragraphs 28 and 37, the affected Skoda diesel vehicles failed to comply with the requirements of ADR 79 in the following respects:

a. under ordinary driving conditions, the affected Skoda diesel vehicles emitted levels of nitrogen oxide that exceeded the emission limits in ADR 79;

b. the components of the EA 189 engine liable to affect the emission of pollutants, and therefore the EA 189 engine itself, were not designed, constructed and assembled as to enable the vehicle, in normal use, to comply with the provisions of ADR 79;

c. the defe at device was a defeat device within the meaning of ADR 79, the installation of which was in contravention of ADR 79 .

Particulars

VW FOIA, EPA 06/20/2017 2017-FFP_038726

(i) *In or about May 2014, independent researchers at the Centre for Alternative Fuels, Engines and Emissions at West Virginia University (WVU) conducted an emissions study on vehicles including a Volkswagen 2012 Jetta and a 2013 Passat with an EA 189 engine . The study was commissioned by the International Council for Clean Transportation. The emissions testing of the two Volkswagen vehicles revealed nitrogen oxide emissions of between 0.344 and 1.505 g/km, depending on drive conditions, which exceed the maximum levels permitted under ADR 79;*

(ii) *On or about 3 September 2015, VW AG admitted that four cylinder diesel vehicles from model ye ars 2009 to 2015 contained the defeat device;*

(iii) *On or about 3 October 2015, VW Australia suspended the sale of vehicles fitted with 1.6L or 2.0L EA189 diesel engines in Australia;*

(iv) The website for Skoda.com.au contains the following information in the section 'Volkswagen Group Diesel Information':

"As you may be aware, there have been press reports about the emissions of a selection of Volkswagen Group diesel vehicles.

Volkswagen Group Australia deeply regrets these issues and wants to ensure that our owners are well-informed about our action plan and next steps regarding this topic.

Q: What is the problem on the affected vehicles?

A: The emissions levels may not meet the regulatory requirements when the affected vehicle is driven under normal conditions.

(v) The website for Skoda-auto.com contains the following information in the section 'Customer Information':

"You will have heard in the news recently that the Volkswagen Group is intensively perusing an investigation into irregularities in the software used in some diesel engines.

ŠKODA has also obtained engines from the Volkswagen Group with this software and installed them in ŠKODA vehicles.

We would like to make a few things clear:

The trust of our customers and the public is and will remain our most important asset. We deeply regret that this situation has arisen.

The important thing for our customers to know is that all vehicles are safe and driveable. The current issue concerns only the software, and we are going to rectify this. We take full responsibility and we will cover all the costs related to modifying the vehicle for the necessary measures."

(vi) A product safety recall on the Australian Competition and Consumer Commission website contains the following information under the heading: 'Volkswagen Group Australia Pty Ltd—1.6L and 2.0L Diesel Engines in Various Skoda Vehicles; PRA number: 2015/14951; Date published: 9th October 2015':

*"**What are the defects?***

The emissions levels may not meet the regulatory requirements when the affected vehide is driven under normal conditions.

What are the hazards?

The vehicle may not comply with emissions standards when driven under normal conditions.

Where the product was sold

Nationally

Traders who sold this product

Authorised Skoda dealers

Supplier

Volkswagen Group Australia Pty Ltd"

(vii) *Further particulars may be provided following discovery.*

Compliance plates fixed to affected Skoda diesel vehicles

46. Notwithstanding the matters pleaded in paragraphs 28 to 45, in purported compliance with Australian Design Rule 79, Skoda and further or alternatively VW Australia, sought and obtained approval from the Commonwealth to fix compliance plates to affected Skoda diesel vehicles.

47. Skoda, and further or alternatively VW Australia, in seeking approval from the Commonwealth to fix compliance plates to affected Skoda diesel vehicles, did not disclose:

a. that the affected Skoda diesel vehicles were fitted with defeat devices , contrary to ADR 79;

VW FOIA, EPA 06/20/2017 2017-FFP_038728

b. that the affected Skoda diesel vehicles did not comply with ADR 79 as ple aded in paragraph 45 above.

48. Having obtained approval from the Commonwealth to do so, Skoda, and further or alternatively, VW Australia, fitted the affected Skoda diesel vehicles with compliance plates prior to their supply, distribution or sale.

Affected Skoda Diesel Vehicles Failed to Comply with Registration Requirements

49. By failing to comply with ADR 79, the affected Skoda diesel vehicles failed to comply (and continue to fail to comply) with the requirements for registration under the relevant State and Territory regulations.

50. By reason of the matters pleaded in the previous paragraph, the affected Skoda diesel vehicles were not and are not lawfully able to be registered in Australia, or driven on public roads in Australia, at any time.

PART E. MISLEADING OR DECEPTIVE CONDUCT

51. The conduct of Skoda, VW Australia and VW AG as pleaded in this Statement of Claim was conduct in trade and commerce.

52. At all material times, affected Skoda diesel vehicles were:

a. "goods" within the meaning of s 4 of the TPA and s 2 of the ACL, in that they were vehicles;

b. "goods" within the meaning of s 74A(2)(a) of the TPA, in that they were goods of a kind ordinarily acquired for personal, domestic or household use;

c. "consumer goods" within the meaning of s 2 of the ACL, in that they were goods that were intended to be used, and were of a kind likely to be used, for personal, domestic or household use or consumption.

53. At all material times, the Applicant and Group Members acquired the affected Skoda diesel vehicles as consumers, within the meaning of s 4B of the TPA in that:

a. the amount paid to acquire the affected Skoda diesel vehicles did not exceed $40,000; or

b. the affected Skoda diesel vehicles were of a kind ordinarily acquired for personal, domestic or household use; or

VW FOIA, EPA 06/20/2017 2017-FFP_038729

c. the affected Skoda diesel vehicles were acquired for use principally in the transport of goods on public roads.

54. At all material times, the Applicant and Group Members acquired the affected Skoda diesel vehicles as consumers, within the meaning of s 3 of the ACL, in that:

a. the amount paid to acquire the affected Skoda diesel vehicles did not exceed $40,000; or

b. the affected Skoda diesel vehicles were of a kind ordinarily acquired for personal, domestic or household use; or

c. the affected Skoda diesel vehicles were acquired for use principally in the transport of goods on public roads.

Skoda Compliance Representation by Skoda/VW Australia

55. By the conduct pleaded in paragraphs 4(g), (i) to (k) above, Skoda manufactured, supplied and otherwise dealt with the affected Skoda diesel vehicles as vehicles that were for use as road vehicles in Australia, and further or alternatively affixed a compliance plate certifying compliance with Australian vehicle standards, and thereby made a representation to all persons acquiring or dea ling with the affected Skoda diesel vehicles that the affected Skoda diesel vehicles complied with the applicable legal requirements for road vehicles in Australia (**the Skoda Compliance Representation**).

56. Further, or alternatively, by the conduct pleaded in paragraphs 5(g) and (h) above, VW Australia distributed, promoted and otherwise dealt with the affected VW diesel vehicles as vehicles that were for use as road vehicles in Australia, and that had affixed a compliance plate certifying compliance with Australian vehicle standards, and thereby made the VW Compliance Representation.

57. The Applicant and Group Members purchased or otherwise acquired interests in the affected VW diesel vehicles because of the Skoda Compliance Representation.

58. By reason of the mat ters pleaded above in paragraph 45, the Skoda Compliance Representation was false or misleading.

VW FOIA, EPA 06/20/2017 2017-FFP_038730

59. By reason of the conduct pleaded in paragraphs 55 and 58, Skoda engaged in conduct in trade or commerce that was misleading or deceptive, or alternatively was likely to mislead or deceive, in contravention of s 52 of the TPA and s 18 of the ACL.

60. By reason of the conduct pleaded in paragraphs 56 and 58, VW Australia engaged in conduct in trade or commerce that was misleading or deceptive, or alternatively was likely to mislead or deceive, in contravention of s 52 of the TPA and s 18 of the ACL.

Skoda ADR Compliance Representation by VW AG/VW Australia

61. By reason of the matters pleaded in paragraph 46 above, Skoda, and further or alternatively VW Australia, represented to the Commonwealth that the affected VW diesel vehicles were compliant with ADR 79 (**the Skoda ADR 79 Compliance Representation**).

Particulars

(i) *The representation was made with respect of each model of affected Skoda diesel vehicles;*

(ii) *The representation was contained in each application for these models submitted pursuant to rule 3.1 of ADR 79;*

(iii) *Further particulars may be provided following discovery and subpoenas in the proceedings, including production of the relevant applications.*

62. The Commonwealth relied upon the Skoda ADR 79 Compliance Representation in:

a. granting approval to each model of affected Skoda diesel vehicles in accordance with rule 4 of ADR 79; and

b. granting approval for Skoda AG, or further and alternatively, VW Australia, to fit a compliance plate to each model of affected VW diesel vehicles.

63. By reason of the matters pleaded in paragraph 45 above, the Skoda ADR 79 Compliance Representation was false and misleading, in that the affected VW diesel vehicles were not compliant with ADR 79.

64. By reason of the conduct pleaded in paragraphs 61 and 63, Skoda, and further and alternatively VW Australia, engaged in conduct in trade or commerce that was

VW FOIA, EPA 06/20/2017 2017-FFP_038731

misleading or deceptive, or alternatively was likely to mislead or deceive, in contravention of s 52 of the TPA and s 18 of the ACL.

Misleading or deceptive silence by Skoda/VW Australia

65. Further or in the alternative, by manufacturing the affected Skoda diesel vehicles for supply to and sale in Australia, and applying for and obtaining approval to affix compliance plates to those vehicles as pleaded in paragraph 46, Skoda created a reasonable expectation:

    a. on the part of the Commonwealth; and

    b. on the part of persons acquiring an interest in an affected Skoda diesel vehicle,

    that the affected Skoda diesel vehicles complied with the applicable legal requirements for road vehicles in Australia.

66. Given that reasonable expectation on the part of the Commonwealth and the persons referred to in the previous paragraph, Skoda's failure to disclose that the affected Skoda diesel vehicles had been fitted with a defeat device, was misleading or deceptive conduct or conduct that was likely to mislead or deceive in that:

    a. if the Commonwealth had been aware that the affected Skoda diesel vehicles contained the defeat device, then the Commonwealth would not have approved the affected Skoda diesel vehicles as complying with ADR 79 and the vehicles would not have been sold in Australia; and

    b. if consumers had been aware that the affected Skoda diesel vehicles contained the defeat device, then consumers would not have acquired an interest in an affected Skoda diesel vehicle.

67. By reason of the conduct pleaded in paragraphs 65 and 66, Skoda engaged in conduct in trade or commerce that was misleading or deceptive, or alternatively was likely to mislead or deceive, in contravention of s 52 of the TPA and s 18 of the ACL.

68. Further or in the alternative, by distributing the affected Skoda diesel vehicles in Australia, and applying for and obtaining Commonwealth approval to affix compliance plates to those vehicles, VW Australia created a reasonable expectation:

    a. on the part of the Commonwealth; and

VW FOIA, EPA 06/20/2017 2017-FFP_038732

b. on the part of persons acquiring an interest in an affected Skoda diesel vehicle,

that the affected Skoda diesel vehicles complied with the applicable legal requirements for road vehicles in Australia.

69. Given that reasonable expectation on the part of the Commonwealth and the persons referred to in the previous paragraph, VW Australia's failure to disclose that the affected Skoda diesel vehicles had been fitted with a defeat device, was misleading or deceptive conduct or conduct that was likely to mislead or deceive in that:

a. if the Commonwealth had been aware that the affected Skoda diesel vehicles contained the defeat device, then the Commonwealth would not have approved the affected Skoda diesel vehicles as complying with ADR 79 and the vehicles would not have been sold in Australia; and

b. if consumers had been aware that the affected Skoda diesel vehicles contained the defeat device, then consumers would not have acquired an interest in an affected Skoda diesel vehicle.

70. By reason of the conduct pleaded in paragraphs 68 and 69, VW Australia engaged in conduct in trade or commerce that was misleading or deceptive, or alternatively was likely to mislead or deceive, in contravention of s 52 of the TPA and s 18 of the ACL.

False and misleading representation

71. Further or in the alternative, by reason of the conduct pleaded in paragraph 55, Skoda made a false or misleading representation in trade or commerce in connection with the promotion of the supply of motor vehicles, that the affected Skoda diesel vehicles:

a. were of a particular standard and quality, in that Skoda falsely represented that the affected Skoda diesel vehicles were compliant with applicable legal requirements for road vehicles in Australia, when that was not the case, in contravention of s 53(a) of the TPA and s 29(1)(b) of the ACL;

b. had certain performance characteristics, uses or benefits, in that Skoda falsely represented that the affected Skoda diesel vehicles were able to be registered and used on public roads in Australia, when that was not the case, in contravention of s 53(c) of the TPA and s 29(1)(g) of the ACL.

VW FOIA, EPA 06/20/2017 2017-FFP_038733

72. Further or in the alternative, by reason of t he conduct pleaded in paragraph 61, Skoda made a false or misleading representation in trade or commerce in connection with the promotion of the supply of motor vehicles, that the affected Skoda diesel vehicles:

a. were of a particular standard or quality, in contravention of s 53(a) of the TPA and s 29(1)(b) of the ACL; and

b. had particular performance characteristics and benefits, contravention of s 53(c) of the TPA and s 29(1)(g) of the ACL,

in that Skoda falsely represented that the affected Skoda diesel vehicles produced emissions a t a level below the limits specified by ADR 79, and that the vehicles' emissions technology would preserve emissions at that level in ordinary driving conditions, when that was not the case.

73. Further or in the alternative, by reason of t he conduct pleaded in paragraph 56, VW Australia made a false or misleading representation in trade or commerce in connection with the promotion of the supply of motor vehicles, that the affected Skoda diesel vehicles:

a. were of a particular standard and quality, in that VW Australia falsely represented that the affected Skoda diesel vehicles were compliant with applicable legal requirements for road vehicles in Australia, when that was not the case, in contravention of s 53(a) of the TPA and s 29(1)(b) of the ACL;

b. had certain performance characteristics, uses or benefits, in that VW Australia falsely represented that the affected Skoda diesel vehicles were able to be registered and used on public roads in Australia, when that was not the case, in contravention of s 53(c) of the TPA and s 29(1)(g) of the ACL.

74. Further or in the alternative, by reason of the conduct pleaded in paragraph 61, VW Australia made a false or misleading representation in trade or commerce in connection with the promotion of th e supply of motor vehicles, that the affected Skoda diesel vehicles:

a. were of a particular standard or quality, in contravention of s 53(a) of the TPA and s 29(1)(b) of the ACL; and

b. had particular performance characteristics and benefits, contravention of s 53(c) of the TPA and s 29(1)(g) of the ACL,

VW FOIA, EPA 06/20/2017 2017-FFP_038734

in that VW Australia falsely represented that the affected Skoda diesel vehicles produced emissions at a level below the limits specified by ADR 79, and that the vehicles' emissions technology would preserve emissions at that level in ordinary driving conditions, when that was not the case.

PART F. UNCONSCIONABLE CONDUCT

75. The Applicant repeats paragraphs 28 to 38, 41 to 42 and 45 to 50.

76. The conduct by Skoda referred to in the previous paragraph occurred in circumstances where:

    a. Skoda concealed from regulators and from consumers that various VW vehicles, including the affected VW diesel vehicles, had a defeat device;

    b. that concealment was deliberate;

    c. the purpose and function of the defeat device was as pleaded in paragraphs 34 to 37;

    d. that purpose and function was achieved in the case of the Commonwealth, because the Commonwealth accepted at face value the results of emissions tests conducted by Skoda, or an authorised representative of Skoda, unaware that the affected Skoda diesel vehicles had a defeat device and that the results provided to the Commonwealth would be unable to be replicated in ordinary driving conditions;

    e. Skoda thereby cheated on emissions tests in the process of obtaining regulatory approval to sell the affected Skoda diesel vehicles in Australia, and thereby obtained approval to sell the affected Skoda diesel vehicles in Australia as a result of that cheating;

    f. the Commonwealth, and thereby consumers, were primarily reliant upon Skoda to conduct any testing with integrity and without devices designed to subvert the testing;

    g. Skoda also cheated on European emissions tests, in circumstances where affected Skoda diesel vehicles were advertised in Australia as complying with European emission standards and such compliance was a very relevant matter

VW FOIA, EPA 06/20/2017 2017-FFP_038735

for consumers in Australia in considering whether to purchase an affected Skoda diesel vehicle;

h. consumers in Australia were in a considerably weaker position than Skoda, and had no means of knowing about the existence of the defeat device or that Skoda was engaged in cheating on emissions tests;

i. the presence of the defeat device allowed Skoda to engage in an unfair comparison with other brands of vehicles in favour of Skoda, in that the performance and fuel economy figures that Skoda was able to promote for the affected Skoda diesel vehicles, and further and alternatively the cost of components for the vehicles and thus the final price of the vehicles, were better than they would be if the vehicles did not have the defeat device and were complying at all times with emissions requirements. Skoda therefore engaged in unfair competition in order to garner additional sales and profits ;

j. as a consequence of the conduct of Skoda, Australian consumers have purchased large numbers of affected Skoda diesel vehicles that:

(i) have higher pollution outputs than consumers would have anticipated;

(ii) alternatively, have lower performance and/or fuel economy than consumers were told when purchasing their vehicles, if the vehicle is modified so as to reduce excessive pollution;

Particulars

(i) *On 8 October 2015, the Chief Executive Officer of Volkswagen US said in testimony before the US congress that there may be a performance reduction resulting from the modification to fix the problem of excessive emissions;*

(ii) *Further particulars may be provided following discovery.*

k. in normal operation of the affected Skoda diesel vehicles, the defeat device operates so as to permit the release significant and unnecessary quantities of pollutants into the atmosphere, thus contributing to poor air quality in Australia and unnecessarily exposing Australians to health risks and health effects, all so that Skoda could make additional sales and profits . Skoda thus deliberately

VW FOIA, EPA 06/20/2017 2017-FFP_038736

compromised the health and safety of Australians and the quality of the Australian environment for profit.

77. By reason of the matters referred to in the previous paragraph, Skoda, in trade or commerce, engaged in conduct in connection with the supply of goods that was, in all the circumstances, unconscionable, in contravention of s 51AB of the TPA, and s 21 of the ACL.

78. Further or in the alternative, the Applicant repeats paragraphs 28 to 38, 43 to 50.

79. The conduct by VW Australia referred to in the previous paragraph occurred in circumstances where:

a. VW Australia concealed from the Commonwealth and from consumers that various Skoda vehicles, including the affected Skoda diesel vehicles, had a defeat device;

b. that concealment was deliberate;

c. the purpose and function of the defeat device was as pleaded in paragraphs 34 to 37 above;

d. VW Australia obtained for itself a benefit flowing from the matters pleaded in paragraph 76 above, including because VW Australia has promoted the affected VW diesel vehicles as compliant with European emissions requirements;

e. consumers in Australia were in a considerably weaker position than VW Australia, and had no means of knowing about the existence of the defeat device;

f. the presence of th e defeat device allowed VW Australia to engage in an unfair comparison with other brands of vehicles in favour of VW Australia, in that the performance and fuel economy figures that VW Australia was able to promote for the affected Skoda diesel vehicles, a nd further and alternatively the cost of components for the vehicles and thus the final price of the vehicles, were better than they would be if the vehicles did not have the defeat device and were complying at all times with emissions requirements. VW Australia therefore engaged in unfair competition in order to garner additional sales and profits;

VW FOIA, EPA 06/20/2017 2017-FFP_038737

g. as a consequence of the conduct of VW Australia, Australian consumers have purchased large numbers of affected Skoda diesel vehicles that:

(i) have higher pollution outputs than consumers would have anticipated;

(ii) alternatively, have lower performance and/or fuel economy than consumers were told when purchasing their vehicles, if the vehicle is modified so as to reduce excessive pollution;

Particulars

(i) *On 8 October 20 15, the Chief Executive Officer of Volkswagen US said in testimony before the US congress that there may be a performance reduction resulting from the modification to fix the problem of excessive emissions;*

(ii) *Further particulars may be provided following discovery.*

h. in normal operation of the affected Skoda diesel vehicles, the defeat device operates so as to permit the release of significant and unnecessary quantities of pollutants into the atmosphere, thus contributing to poor air quality in Australia and unnecessarily exposing Australians to health risks and health effects, all so that VW Australia could make additional sales and profits. By selling affected Skoda diesel vehicles with the defeat device, VW Australia has thus compromised, or alternatively deliberately compromised, the health and safety of Australians and the quality of the Australian environment for profit.

80. By reason of the matters referred to in the previous paragraph, VW Australia, in trade or commerce, engaged in conduct in connection w ith the supply of goods that was, in all the circumstances, unconscionable, in contravention of s 51AB of the TPA, and s 21 of the ACL.

81. Further or in the alternative, the Applicant repeats paragraphs 28 to 40, 45 to 50.

82. The conduct by VW AG referred to in the previous paragraph occurred in circumstances where:

a. VW AG designed and developed the defeat device for installation and use in vehicles including VW, Audi and Skoda vehicles;

VW FOIA, EPA 06/20/2017 2017-FFP_038738

b. VW AG concealed from regulators and from consumers that various Skoda vehicles, including the affected Skoda diesel vehicles, had a defeat device;

c. that concealment was deliberate;

d. the purpose and function of the defeat device was as pleaded in paragraphs 34 to 37 above;

e. VW AG, as the ultimate owner of Skoda and Volkswagen Austral ia, obtained for itself a benefit flowing from the matters pleaded in paragraph 76 above, including because Skoda and/or alternatively has promoted the affected Skoda diesel vehicles as compliant with European emissions requirements;

f. consumers in Australia were in a considerably weaker position than VW AG, and had no means of knowing about the existence of the defeat device;

g. the presence of the defeat device allowed , and was intended by VW AG to allow, Skoda and/or VW Australia to engage in an unfair compa rison with other brands of vehicles in favour of Skoda and/or VW Australia, in that the performance and fuel economy figures that Skoda and/or VW Australia was able to promote for the affected Skoda diesel vehicles, and further and alternatively the cost o f components for the vehicles and thus the final price of the vehicles, were better than they would be if the vehicles did not have the defeat device and were complying at all times with emissions requirements. Skoda and/or VW Australia therefore engaged i n unfair competition in order to garner additional sales and profits;

h. as a consequence of the conduct of VW AG, Australian consumers have purchased large numbers of affected Skoda diesel vehicles that:

(i) have higher pollution outputs than consumers would have anticipated;

(ii) alternatively, have lower performance and/or fuel economy than consumers were told when purchasing their vehicles, if the vehicle is modified so as to reduce excessive pollution;

Particulars

(i) *On 8 October 2015, the Chief Executive Officer of Volkswagen US said in testimony before the US congress that there may be a*

VW FOIA, EPA 06/20/2017 2017-FFP_038739

performance reduction resulting from the modification to fix the problem of excessive emissions;

(ii) *Further particulars may be provided following discovery.*

i. in normal operation of the affected Skoda diesel vehicles, the defeat device operates so as to permit the release of significant and unnecessary quantities of pollutants into the atmosphere, thus contributing to poor air quality in Australia and unnecessarily exposing Australians to health risks and health effects, all so that VW Australia could make additional sales and profits. By its conduct VW AG has thus compromised, or alternatively deliberately compromised, the health and safety of Australians and the quality of the Australian environment for profit.

83. By reason of the matters referred to in the previous paragraph, VW AG, in trade or commerce, engaged in conduct in connection with the supply of goods that was, in all the circumstances, unconscionable, in contravention of s 51AB of the TPA, and s 21 of the ACL.

PART G. FAILURE TO COMPLY WITH STATUTORY WARRANTIES AND GUARANTEES

84. At all material times until 1 January 2011:

a. Skoda, in trade and commerce, manufactured and supplied the affected Skoda diesel vehicles to VW Australia, or alternatively, Skoda dealers and other retailers selling Skoda vehicles; and

b. Skoda dealers and other retailers selling Skoda vehicles supplied the affected Skoda diesel vehicles to consumers.

85. Further, or alternatively, at all material times until 1 January 2011:

a. VW Australia, in trade and commerce, manufactured and supplied the affected Skoda diesel vehicles to Skoda dealers and other retailers selling Skoda vehicles; and

b. Skoda dealers and other retailers selling Skoda vehicles supplied the affected Skoda diesel vehicles to consumers.

86. At material times from 1 January 2011, affected Skoda diesel vehicles of which Skoda and/or VW Australia were the manufacturer, were supplied to consumers, in trade and

VW FOIA, EPA 06/20/2017 2017-FFP_038740

commerce, by Skoda dealers and by other retailers selling Skoda vehicles, including second hand dealers.

Action in respect of goods of unmerchantable quality: TPA

87. The affected VW diesel vehicles were not of merchantable quality because they:

    a. were unable lawfully to be registered or used on public roads in Australia; and

    b. further or alternatively, possessed a defeat device which prevented the goods from complying with the Australian emissions requirements contained in ADR 79, as pleaded above in paragraph 45.

88. Further, the affected Skoda diesel vehicles were not of merchantable quality because they were not as fit for the purpose of being registered or driven on public roads in Australia, being a purpose for which motor vehicles are commonly bought, as it was reasonable to expect.

89. As pleaded in paragraphs 133 to 137, the Applicant and Group Members suffered loss or damage by reason of the fact that the affected Skoda diesel vehicles were not of merchantable quality.

90. Accordingly, by reason of the matters pleaded above in paragraphs 84, and 87 to 89, Skoda is liable to compensate the Applicants and class members for the loss or damage, in accordance with s 74D of the TPA.

91. Further or alternatively, by reason of the matters pleaded above in paragraphs 85, and 87 to 89, VW Australia is liable to compensate consumers for the loss or damage, in accordance with s 74D of the TPA.

Guarantee as to acceptable quality: ACL

92. By reason of the matters pleaded in the paragraph 86, there was a statutory guarantee that the Skoda diesel vehicles were of acceptable quality, as specified by s 54 of the ACL.

93. By reason of the matters pleaded in paragraph 45, the affected Skoda diesel vehicles failed to comply with the guarantee as to acceptable quality imposed by s 54 of the ACL, in that the vehicles were not of acceptable quality because they:

    a. were unable lawfully to be registered or used on public roads in Australia; and

VW FOIA, EPA 06/20/2017 2017-FFP_038741

b. further or alternatively, possessed a defeat device which prevented the goods from complying with the Australian emissions requirements contained in ADR 79.

94. Further, by reason of the matters pleaded in paragraph 45, the affected Skoda diesel vehicles failed to comply with the guarantee as to acceptable quality imposed by s 54 of the ACL, in that the vehicles were not fit for the purposes for which goods of that type are commonly supplied or free from defects, because they:

a. were unable lawfully to be registered or used on public roads in Australia; and

b. further or alternatively, possessed a defeat device which prevented the goods from complying with the Australian emissions requirements contained in ADR 79, as pleaded above in paragraph 45.

95. For the purposes of s 271(1) of the ACL, the Applicant and Group Members are affected persons in relation to the affected Skoda diesel vehicles.

96. Accordingly, by reason of the failure to comply with the guarantee imposed by s 54 of the ACL, the Applicant and Group Members are entitled under s 271 of the ACL to recover damages from Skoda.

97. Further, or alternatively, by reason of the failure to comply with the guarantee imposed by s 54 of the ACL, the Applicant and Group Members are entitled under s 271 of the ACL to recover damages from VW Australia.

Action in respect of non-compliance with express warranty: TPA

98. By reason of placing compliance plates on the affected Skoda diesel vehicles, Skoda and further or alternatively VW Australia, in trade and commerce, gave an express warranty, within the meaning of s 74G of the TPA, that the affected Skoda diesel vehicles complied with the applicable national standards.

99. By reason of the conduct pleaded in paragraph 45, Skoda, and further or alternatively VW Australia, failed to comply with the express warranty it gave or made because the affected Skoda diesel vehicles failed to comply with ADR 79, which was a national standard for the purposes of the Motor Vehicle Standards Act.

VW FOIA, EPA 06/20/2017 2017-FFP_038742

100. As pleaded below in paragraphs 133 to 149 below, the Applicant and Group Members suffered loss or damage by reason of Skoda's, and further or alternatively, VW Australia's, failure to comply with its express warranty.

101. By reason of the matters pleaded in paragraphs 84, 85, and 98 to 100, Skoda, and further or alternatively VW Australia is liable under s 74G of the TPA to compensate the Applicant and Group Members for the loss or damage which they have suffered.

Failure to comply with express warranty: ACL

102. By reason of the matters pleaded in paragraph 86, there was a statutory guarantee imposed by s 59 of the ACL that Skoda further or alternatively VW Australia would comply with any express warranty it gave or made in relation to the affected Skoda diesel vehicles.

103. By reason of placing compliance plates on the affected Skoda diesel vehicles, Skoda, and further or alternatively VW Australia gave or made an express warranty that the affected Skoda diesel vehicles complied with the applicable national standards.

104. By reason of the conduct pleaded in paragraph 45, Skoda, and further or alternatively VW Australia, failed to comply with the express warranty it gave or made because the affected Skoda diesel vehicles failed to comply with ADR 79, which was a national standard for the purposes of the Motor Vehicle Standards Act.

105. For the purposes of s 271(1) of the ACL, the Applicant and Group Members are affected persons in relation to the affected Skoda diesel vehicles.

106. Accordingly, by reason of the failure to comply with the guarantee imposed by s 54 of the ACL, the Applicant and Group Members are entitled under s 271 of the ACL to recover damages from Skoda, and further or alternatively VW Australia.

PART H. FAILURE TO COMPLY WITH SAFETY STANDARDS

107. By reason of the matters pleaded in paragraph 52 and conduct pleaded in paragraph 45:

    a. the affected Skoda diesel vehicles were consumer goods for which there was a safety standard in force, namely ADR 79, and which did not comply with the standard, for the purposes of s 106 of the ACL;

VW FOIA, EPA 06/20/2017 2017-FFP_038743

b. the affected Skoda diesel vehicles were consumer goods for which there was a prescribed consumer product safety standard in force , namely ADR 79 , and which did not comply with the product safety standard, for the purposes of s 65C of the TPA;

c. Skoda supplied consumer goods in contravention of s 65C of the TPA and s 106(1) of the ACL;

d. Skoda manufactured, possessed and had control over consumer goods in contravention of s 106(3) of the ACL;

e. VW Australia supplied consume r goods in contravention of s 65C of the TPA and s 106(1)(3) of the ACL; and

f. VW Australia possessed and had control over consumer goods in contravention of s 106(3) of the ACL.

108. The Applicant and Group Members suffered loss or damage , as set out below at paragraphs 133 to 137 , which loss or damage they would not have suffered had the vehicles complied with ADR 79 and which was a result of a defect in the vehicles (being the presence of the defeat device).

PART I. TORT OF DECEIT

Deceit by VW Australia (including as agent of Skoda)

109. As pleaded in paragraph 56, VW Australia made the Skoda Compliance Representation (as defined in paragraph 55 above) to the Applicant and Group Members:

a. knowing it to be untrue as pleaded in paragraphs 45 and 46;

b. alternatively, recklessly indifferent to its truth;

c. intending that the Applicant and Group Members would rely on it in deciding to acquire an affected Skoda diesel vehicle.

110. As pleaded in paragraph 57, the Applicant and Group Members did in fact rely on the Skoda Compliance Representation to acquire an interest in an affected Skoda diesel vehicle.

VW FOIA, EPA 06/20/2017 2017-FFP_038744

111. As pleaded in paragraphs 133 to 137, the Applicant and Group Members have suffered loss and damage by reason of their acquisition of an affected Skoda diesel vehicle, for which VW Australia is liable.

112. Further and alternatively, VW Australia is and was at all material times:

    a. Skoda's exclusive distributor in Australia, including of affected Skoda diesel vehicles; and

    b. Skoda's agent.

113. Skoda knew and intended that VW Australia would make the Skoda Compliance Representation in the course of VW Australia's importation and distribution of the affected Skoda diesel vehicles to persons acquiring such a vehicle.

114. Skoda thereby authorised VW Australia, and/or intended VW Australia to make the Skoda Compliance Representation to the Applicant and Group Members when Skoda :

    a. knew it was untrue as pleaded in paragraphs 45 to 46;

    b. intended that the Applicant and Group Members would rely on it in deciding to acquire an affected Skoda diesel vehicle.

115. As pleaded in paragraphs 133 to 137, the Applicant and Group Members have suffered loss and damage by reason of their acquisition of an affected Skoda diesel vehicle.

116. By reason of the m atters pleaded in paragraphs 112 to 114 , Skoda is liable for the Applicant's and Group Members' loss and damage arising from their reliance on the Skoda Compliance Representation made by VW Australia.

Deceit by Skoda

117. As pleaded in paragraphs 55, Skoda made the Skoda Compliance Representation to the Applicant and Group Members:

    a. knowing it to be untrue;

    b. intending that the Applicant and Group Members would rely on it in deciding to acquire an affected Skoda diesel vehicle.

VW FOIA, EPA 06/20/2017 2017-FFP_038745

118. As pleaded in paragraph 57, the Applicant and Group Members did in fact rely on the Skoda Compliance Representation to purchase or otherwise acquire an interest in an affected Skoda diesel vehicle.

119. As pleaded in paragraphs 133 to 137, the Applicant and Group Members have suffered loss and damage by reason of their acquisition of an affected Skoda diesel vehicle, for which VW AG is liable.

Deceit by VW AG

120. VW AG knew and intended that Skoda and/or Volkswagen Australia would make the Skoda Compliance Representation in the course of manufacturing, supplying, and otherwise dealing with the affected Skoda diesel vehicles as vehicles that were for use as road vehicles, and further or alternatively, affixing a compliance plate certifying compliance with Australian vehicle standards.

121. VW AG thereby authorised Skoda, and/or Volkswagen Australia, and/or intended Skoda and/or Volkswagen Australia to make the Skoda Compliance Representation to the Applicant and Group Members when VW AG:

    a. knew it was untrue as pleaded in paragraphs 45 to 46;

    b. intended that the Applicant and Group Members would rely on it in deciding to acquire an affected Skoda diesel vehicle.

122. As pleaded in paragraphs 133 to 137, the Applicant and Group Members have suffered loss and damage by reason of their acquisition of an affected Skoda diesel vehicle.

123. By reason of the matters pleaded in paragraphs 120 to 122, VW AG is liable for the Applicant and Group Members' loss and damage arising from their reliance on the Skoda Compliance Representation made by Skoda and/or Volkswagen Australia

PART K. ACCESSORIAL LIABILITY

124. Skoda engaged in the following conduct:

    a. it manufactured affected Skoda diesel vehicles for sale in Australia, containing defeat devices, as pleaded in paragraph 38 above;

VW FOIA, EPA 06/20/2017 2017-FFP_038746

b. further or alternatively Skoda sought and obtained approval to fix compliance plates to the affected Skoda diesel vehicles, as pleaded in paragraph 46 above; and/or

c. further or alternatively Skoda fitted affected Skoda diesel vehicles with compliance plates.

125. Further, Skoda engaged in the conduct alleged in the previous paragraph with the knowledge that VW Australia would supply the affected Skoda diesel vehicles to Skoda dealers and other retailers, who in turn would sell the affected Skoda diesel vehicles to Australian consumers.

126. By reason of the matters alleged in paragraphs 124 and 125 above, Skoda was knowingly concerned in, or a party to, or aided, abetted, counselled or procured, the following contraventions:

a. VW Australia's contravention of s 52 of the TPA and s 18 of the ACL, in relation to the Skoda Compliance Representation, as pleaded in paragraph 60 above;

b. VW Australia's contravention of s 52 of the TPA and s 18 of the ACL, in relation the Skoda ADR 79 Compliance Representation, as pleaded in paragraph 64 above;

c. VW Australia's contravention of s 52 of the TPA and s 18 of the ACL, in relation to VW Australia's silence, as pleaded in paragraph 70 above;

d. VW Australia's contraventions of s 53(a) and (c) of the TPA, and s 29(1)(b) and (g) of the ACL, in relation to the Skoda's false and misleading representation, as pleaded in paragraphs 73 and 74 above;

e. VW Australia's contravention of s 51AB of the TPA and s 21 of the ACL, in relation to VW Australia's unconscionability, as pleaded in paragraph 83 above;

f. VW Australia's contravention of s 65C of the TPA and s 106 of the ACL, as pleaded in paragraph 107 above.

127. VW Australia engaged in the following conduct:

a. it sought and obtained approval to fix compliance plates to the affected Skoda diesel vehicles;

VW FOIA, EPA 06/20/2017 2017-FFP_038747

b. it fitted affected Skoda diesel vehicles with compliance plates;

c. it supplied affected Skoda diesel vehicles to Skoda dealers and other retailers.

128. Further, VW Australia engaged in the conduct alleged in the previous paragraph with the knowledge that VW AG had installed defeat devices in the affected VW diesel vehicles.

129. By reason of the matters alleged in paragraphs 127 and 128 above, VW Australia was knowingly concerned in, or a party to, or aided, abetted, counselled or procured, the following contraventions by Skoda:

a. Skoda's contravention of s 52 of the TPA and s 18 of the ACL, in relation to the Skoda Compliance Representation, as pleaded in paragraph 59 above;

b. Skoda's contravention of s 52 of the TPA and s 18 of the ACL, in relation the Skoda ADR 79 Compliance Representation, as pleaded in paragraph 64 above;

c. Skoda's contravention of s 52 of the TPA and s 18 of the ACL, in rel ation to Skoda's silence, as pleaded in paragraph 67 above;

d. Skoda's contraventions of s 53(a) and (c) of the TPA, and s 29(1)(b) and (g) of the ACL, in relation to Skoda's false and misleading representation, as pleaded in paragraphs 71 and 72 above;

e. Skoda's contravention of s 51AB of the TPA and s 21 of the ACL, in relation to Skoda's unconscionability, as pleaded in paragraph 77 above;

f. Skoda's contravention of s 65C of the TPA and s 106 of the ACL, as pleaded in paragraph 107 above.

130. Further or in the alternative, VW AG engaged in the following conduct:

a. VW AG designed and developed the defeat device for installation and use in vehicles including, relevantly, the affected Skoda diesel vehicles; and

b. further or alternatively VW AG supplied components to Skoda, including engines and engine management modules, which incorporated the defeat device;

131. Further, VW AG engaged in the conduct alleged in the previous paragraph with the knowledge that VW Australia would supply the affected Skoda diesel vehicles to Skoda

VW FOIA, EPA 06/20/2017 2017-FFP_038748

dealers and other retailers, who in turn would sell the affected Skoda diesel vehicles to Australian consumers.

132. By reason of the matters alleged in paragraphs 130 and 131 above, VW AG was knowingly concerned in, or a party to, or aided, abetted, counselled or procured, the following contraventions:

a. VW Australia's contravention of s 52 of the TPA and s 18 of the ACL, in relation to the Skoda Compliance Representation, as pleaded in paragraph 60 above;

b. VW Australia's contravention of s 52 of the TPA and s 18 of the ACL, in relation the Skoda ADR 79 Compliance Representation, as pleaded in paragraph 64 above;

c. VW Australia's contravention of s 52 of the TPA and s 18 of the ACL, in relation to VW Australia's silence, as pleaded in paragraph 70 above;

d. VW Australia's contraventions of s 53(a) and (c) of the TPA, and s 29(1)(b) and (g) of the ACL, in relation to the Skoda false and misleading representation, as pleaded in paragraphs 73 and 74 above;

e. VW Australia's contravention of s 51AB of the TPA and s 21 of the ACL, in relation to VW Australia's unconscionability, as pleaded in paragraph 77 above;

f. VW Australia's contravention of s 65C of the TPA and s 106 of the ACL, as pleaded in paragraph 107 above;

g. Skoda's contravention of s 52 of the TPA and s 18 of the ACL, in relation to the Skoda Compliance Representation, as pleaded in paragraph 59 above;

h. Skoda's contravention of s 52 of the TPA and s 18 of the ACL, in relation the Skoda ADR 79 Compliance Representation, as pleaded in paragraph 64 above;

i. Skoda's contravention of s 52 of the TPA and s 18 of the ACL, in relation to Skoda's silence, as pleaded in paragraph 67 above;

j. Skoda's contraventions of s 53(a) and (c) of the TPA, and s 29(1)(b) and (g) of the ACL, in relation to Skoda's false and misleading representation, as pleaded in paragraphs 71 and 72 above;

VW FOIA, EPA 06/20/2017 2017-FFP_038749

k. Skoda's contravention of s 51AB of the TPA and s 21 of the ACL, in relation to Skoda's unconscionability, as pleaded in paragraph 77 above;

l. Skoda's contravention of s 65C of the TPA and s 106 of the A CL, as pleaded in paragraph 107 above.

PART L. LOSS OR DAMAGE SUFFERED BY THE APPLICANT AND GROUP MEMBERS AND RELIEF SOUGHT

133. The Applicant and Group Members acquired an interest in an affected Skoda diesel vehicle that had no value at the time that th e interest was acquired, as the vehicle was not lawfully able to be registered in Australia or used on a public road in Australia.

134. By reason of the matters pleaded in the previous paragraph, each of the Applicant and Group Members have suffered loss and damage equivalent to the entire consideration given by them to acquire their interest in an affected Skoda diesel vehicle.

135. Further or in the alternative, the loss and damage suffered by each of the Applicant and Group Members is the difference between the consideration given by them to acquire their interest in an affected Skoda diesel vehicle and the true value of the vehicle at the time of acquiring the interest (including the true value if the defects in the vehicle had been known).

136. Further or in the alternative, the loss and damage suffered by each of the Applicant and Group Members is the diminution in the value of their interest in the relevant affected Skoda diesel vehicle by virtue of the revelation that the affected VW diesel vehicles contain a defeat device.

Particulars

The loss and damage includes the impact of the negative publicity flowing from:

(i) the revelation of the use of defeat devices; and/or

(ii) the necessary work required to rectify the vehicle to ensure the proper functioning of pollution control mechanisms,

on the second-hand value of the relevant vehicle.

VW FOIA, EPA 06/20/2017 2017-FFP_038750

137. Further or in the alternative, the loss and damage of the Applicant and each of the Group Members includes any expense or inconvenience suffered by them as a consequence of any recall of the relevant vehicle or any other steps to rectify any defects in the relevant vehicle.

138. The Applicant and Group Members have suffered the loss and damage pleaded in paragraphs 133 to 137 above by the conduct, or alternatively because of the conduct, of the Respondents pleaded in paragraphs 59, 60, 71, 73, 77, 80 and 83 above.

139. Further or in the alternative, in the absence of the conduct pleaded in paragraph 64 above, the Commonwealth would not have approved the affected Skoda diesel vehicles as compliant w ith ADR 79 and the vehicles would not have been sold in Australia, and the Applicant and Group Members have thereby suffered the loss and damage pleaded in paragraphs 133 to 1 37 above by the conduct, or alternatively because of the conduct, of the Responden ts pleaded in paragraphs 64, 72, 74, 77, 80 and 83 above.

140. Further or in the alternative, by reason of the matters pleaded in paragraphs 66 and 69, the Applicant and Group Members have suffered the loss and damage pleaded in paragraphs 133 to 137 above by the conduct, or alternatively because of the conduct, of the Respondents pleaded in paragraphs 67 and 70 above.

141. Further or in the alternative, the Applicant repeats paragraphs 89 to 91.

142. Further or in the alternative, the Applicant and Group Members have suffered the loss and damage pleaded in paragraphs 133 to 137 above which they are entitled to recover from the Respondents as pleaded in paragraphs 96 and 97 above.

143. Further or in the alternative, the Applicant repeats paragraphs 100 and 101.

144. Further or in the alternative, the Applicant and Group Members have suffered the loss and damage pleaded in paragraphs 133 to 137 above which they are entitled to recover from the Respondents as pleaded in paragraph 106 above.

145. Further or in the alternative, the Appl icant and Group Members have suffered the loss and damage pleaded in paragraphs 133 to 137 above by the conduct, or alternatively because of the conduct, of the Respondents pleaded in paragraphs 107 and 108 above.

146. Further or in the alternative, the Applicant repeats paragraphs 111, 115 and 119.

VW FOIA, EPA 06/20/2017 2017-FFP_038751

147. Further or in the alternative, by reason of the matters pleaded in paragraphs 138 to 140 and 145 above, the Applicant and Group Member have suffered the loss and damage pleaded in paragraphs 133 to 137 above by reason of the conduct of the Respondents pleaded in paragraphs 124 to 132 above.

148. By engaging in the conduct pleaded in paragraphs 109 to 123 above, Skoda and VW Australia showed a conscious and contumelious disregard for the rights of the Applicant and Group Members, which conduct is deserving of punishment by an award of exemplary damages.

149. The Applicant claims, in his own right and on behalf of the Group Members, the relief specified in the application, namely:

    a. an order pursuant to s 87 of the TPA and s 243 of the ACL requiring the respondents to refund money or property received as consideration for the acquisition of an interest in affected Skoda diesel vehicles;

    b. further or alternatively, damages;

    c. further, exemplary damages;

    d. costs; and

    e. such other orders as the Court thinks fit.

Date: 22 November 2015



_____

Jason Geisker

MAURICE BLACKBURN PTY LTD

Solicitor for the Applicant

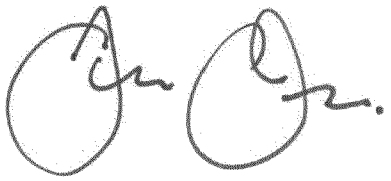
This pleading was prepared by Maurice Blackburn, Sandy Dawson and Declan Roche of counsel and settled by Cameron Moore SC.

VW FOIA, EPA 06/20/2017 2017-FFP_038752

Certificate of lawyer

I Jason Geisker certify to the Court that, in relation to the statement of claim filed on behalf of the Applicant, the factual and legal material available to me at present provides a proper basis for each allegation in the pleading.

Date: 22 November 2015



_____

Jason Geisker

VW FOIA, EPA 06/20/2017 2017-FFP_038753

Schedule

No. of 2015

Federal Court of Australia
District Registry: NSW
Division: General

Respondents

Second Respondent: **Volkswagen Group Australia Pty Ltd ACN 093 117 876**

Third Respondent: **Volkswagen AG**

Date: 22 November 2015

VW FOIA, EPA 06/20/2017 2017-FFP_038754

To: Belser, Evan[Belser.Evan@epa.gov]
From: Brooks, Phillip
Sent: Wed 2/17/2016 4:03:43 PM
Subject: Fwd: For review by Chris and Susan: Draft responses to VW QFRs from HEC hearing
Oct 8 2015 HEC VW Hearing QFRs- EPA responses v3.docx
ATT00001.htm

Did you have any concerns on these?

Sent from my iPhone

Begin forwarded message:

From: "Sutton, Tia" <sutton.tia@epa.gov>
Date: February 11, 2016 at 12:17:17 PM EST
To: "Grundler, Christopher" <grundler.christopher@epa.gov>, "Shinkman, Susan" <Shinkman.Susan@epa.gov>
Cc: "Hengst, Benjamin" <Hengst.Benjamin@epa.gov>, "Cook, Leila" <cook.leila@epa.gov>, "Belser, Evan" <Belser.Evan@epa.gov>, "Brooks, Phillip" <Brooks.Phillip@epa.gov>, "Bunker, Byron" <bunker.byron@epa.gov>, "Cohen, Janet" <cohen.janet@epa.gov>
Subject: For review by Chris and Susan: Draft responses to VW QFRs from HEC hearing

Chris and Susan,

Attached for your review are responses to the QFRs we received following the Oct 8th HEC hearing on VW. These responses were drafted by OECA and OTAQ staff, and have been reviewed by both offices as well as OCIR. Your review by COB Tuesday, February 16 would be appreciated (but please let us know if you need more time).

Following your review, our next steps for getting the QFRs back to HEC are as follows:

- AA review (Janet McCabe, Cynthia Giles, Nichole Distefano)
- OMB review
- Respond to OMB, final clearance, and transmittal to HEC

Please let us know if you have any questions.

Thanks,

Tia

To: Belser, Evan[Belser.Evan@epa.gov]
From: Sutton, Tia
Sent: Wed 2/17/2016 9:57:14 PM
Subject: FW: For review by Chris and Susan: Draft responses to VW QFRs from HEC hearing
Oct 8 2015 HEC VW Hearing QFRs- EPA responses v3.docx
Oct 8 2015 HEC VW Hearing QFRs- EPA responses v3.docx-CG Edits and Comme....docx

Hi Evan,

Here's the email that I sent to Chris and Susan last week. Thanks for chasing things down on this!

And I've also attached Chris' comments here – wasn't sure if she'd prefer to just add her edits/comments to what Chris marked up?

Thanks again!

-Tia

From: Sutton, Tia
Sent: Thursday, February 11, 2016 12:17 PM
To: Grundler, Christopher <grundler.christopher@epa.gov>; Shinkman, Susan <Shinkman.Susan@epa.gov>
Cc: Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Cook, Leila <cook.leila@epa.gov>; Belser, Evan <Belser.Evan@epa.gov>; Brooks, Phillip <Brooks.Phillip@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>
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Thanks,

Tia